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ORIGINAL ARTICLES

TUBERCULOSIS A COMMUNICABLE DISEASE.*

BY J. M. ALLEN, M. D.

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Phthisis pulmonalis has existed in the past history of man to a point where the memory runneth not to the contrary. Thousands of pages have been written on this subject. Numerous plausible theories have been presented as to its etiology, pathology and treatment, in which we find scarcely a grain of truth.

Possibly the most accurate description up to his time was given by Leannee of Paris. Later, Louis of Paris gave a description of its pathology which was possibly equal to any we have now. In his accuracy of pathology, he pointed out the fact that the most frequent point of attack in the lung was its apex, without being able to give a reason.

Now we know the reason to be the lessened amount of blood circulating in this portion of the lung as compared to other portions. Therefore, this portion of lung's powers of resistance is greatly decreased because of the absence of leucocytes.

The first valuable truth in connection with this disease was promulgated by our gerat medical philosopher, Austin Flint, namely, that the disease was contagious, but was unable to explain why. It remained for Koch to make this discovery in finding and demonstrating the tubercle bacilli. This verified the assertion of Flint, although it had been doubted by many. These discoveries gave a new impetus to the study of this disease, and we have been working along safer lines, although we have not added a great deal in establishing a fixed and reliable treatment.

Recent discoveries demonstrate that the bacilli may exist with all of its vital force for a long time. Further, that mixed with the dust of the atmosphere, it may move along the currents of atmosphere, and, by this means, be received in the mouth and pass into the structures of the fauces and be carried by the lymphatic system to four principal

*Read before the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

points by natural selection, which are the apex of the lung, next the duodenum, then the glandular system, lastly bone.

These three truths, namely contagion, existence of a germ, and its being disseminated in the atmosphere, must make the basis, at present, of our efforts to eradicate the disease.

The fact that these germs can be destroyed by germicidal remedies is the only force that we have to battle with against this dreadful disease. We must begin with our residences, offices, school houses, public halls, hotels, railroads and any where else that people do congregate because there cannot be any congregation of people unless there is more or less of those who have heredity and the disease developed to a greater or less extent and liable to expectorate the germ. Private families in which there is the slightest probability of hereditary tendency should be compelled by a law to disinfect their houses. The same is true of our school houses, offices and public buildings. No railroad passenger trains should be allowed to start across the country without first being disinfected. The upholstering in our luxurious cars is admirably adapted to retain for a long time this germ in its dried state, and it is a question with me whether or not the state should not compel the railroads to do away with all upholstering. Our citizens are rapidly recognizing this danger and are doing away with the luxurious Brussell's carpet, and using rugs that can be cleaned. The medical profession should encourage this as far as possible.

I have mentioned only three facts that we absolutely know in regard to consumption. There is one other point in connection with this disease that I desire especially to call your attention to, because I think a knowledge of how to control it is absolutely necessary before we can say we are masters of the situation. I refer to heredity, which is so strong that it will sometimes skip two or three generations. It seems to me if the energy of the medical profession was directed on this point, we might be enabled to solve its mystery and forever eradicate the disease.

Many theories have been offered on this subject, as to the nature of heredity, none of which seem logical to me. I will reiterate a theory on this subject that I presented to this society several years ago in reporting some cases of tuberculosis treated successfully by serum. As a basis for this, I will assert that the life and development of all germs depend as much upon its environments as does the life and development of man.

Secondly, as a demonstration of this, we will take two forms of germs, one of which cannot live without oxygen, the other can. Again, I assert that germ life in the human being depends upon a distinct entity, and its lives and develops in the human body just as long as this entity exists. This, I think is the correct explanation of the fixedness in type of all epidemic diseases. In the case under question,

one of the difficulties in investigation is that only a small portion of the population possess this entity by heredity. The other portion of the population have not this entity and are not in danger of invasion by the tubercle bacilli. To illustrate, all of the human family possess the entity of supporting and developing of smallpox germ, but after one attack they are immuned, and the germ can no longer live within their bodies. The direction that I think the medical mind should be turned is fully represented in the search that Jenner made when he discovered that Kine pox would immune against smallpox.

As much as I admire the noble humanitarianism that prompts the universal action of the medical profession in its crusade against the spread of tuberculosis, I cannot hope for any permanent effort to eradicate the disease until we know something by which we can destroy this entity or food in a certain class of the human family upon which this germ lives and develops.

The serum treatment is going in the right direction|. I treated three cases of tuberculosis with serum over twelve years ago, that are now well. Tuberculin is also going in the right direction and I believe the remedy will yet be found to immune those who have a hereditary tendency to phthisis, either by the destruction of this entity or by the increase of the opsonins in the serum of the blood.

SANITATION AND TUBERCULOSIS.*

BY GEORGE HOMAN, M. D., ST. LOUIS, MO.

This being the topic assigned to me for brief consideration it may be stated at once that if by sanitation is meant "the devising and applying of measures for preserving and promoting public health, the removal and neutralization of elements injurious to health," then in the light of present knowledge respecting tuberculosis the prevention of that disease is not difficult, and ordinary intelligence and common sense when brought to bear on the question will avail much in measures planned for its curtailment and overthrow.

In obedience to the law of nature in every domain of life the existence and extension of the disease known as tuberculosis is due to seeds, and the behavior of these microscopic germs in their successive generations is not vitally different from the development of seeds of other forms of vegetable life that are visible and tangible to unaided sight and touch.

If all classes of our population could be brought to realize that the growing of a crop of consumption is just as natural and orderly a process as is the growing of a crop of cabbages or corn, and that the elements of seed and season and soil and surroundings must be care-

*Read before the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

fully considered with respect to each, the way for the eradication of consumption would be made more clear and the means of prevention become more easy of application.

If it is the desire of the farmer to extirpate from his fields the useless or noxious plants known as weeds this is done by destroying their growth before maturity or by the destruction of the seeds by fire or other means. These forms of plant life being usually of an intrusive nature and hardy growth vigilant watchfulness on the part of the husbandman is demanded to keep them in subjection so that no encroachment on beneficial crops shall occur; and further the ground must be carefully and repeatedly searched for evidence of renewed growth.

Similarly, the human soil exposed to invasion by tuberculous germs should be made as sterile and unwelcome as possible to such an implantation by the avoidance of predisposing causes and harmful exposures, and every care observed to destroy the known seeds before they can secure lodgment in the body either by being breathed in, swallowed, or otherwise acquired.

As all such seeds or germs must necessarily have come from a former matured crop, and as such ripened product is usually derived from a person having pulmonary consumption, it will be seen at once that everything that such a person coughs up or passes in the excretions should be deemed dangerous to other persons within reach, and every care taken to destroy instantly all such expectorations and excretal discharges.

So long as these germs or seeds remain in their naturally moist condition there is little risk of their being spread abroad, but when the expectorated matters become dry and powdered, and the germs are set afloat in the air subject to being taken into the lungs by respiration, or by being swallowed after settling in milk or on other exposed food substances, the danger becomes a special as well as a general one for every person receiving them in whom the soil is fit, the season favorable, and the circumstances congenial will almost inevitably become infected, and reproduce the disease to the peril of those about him, many of whom may be uninformed of their danger, and this may be true even of the sick person himself.

Inasmuch as the person who thus propagates the disease cannot be summarily seized and destroyed, his fellows exposed to this danger have the right in self-protection, to demand and require that everything coming from him and liable to communicate the infection shall be destroyed forthwith, for as a matter of fact the instant destruction of the spittings and stools of consumptives by fire or chemicals very nearly sums up the whole question of sanitation in tuberculosis, as any negligence at this vital point may defeat or vitiate all later efforts—for once the seeds are set free who can fix bounds to their reach and spread or tell their ultimate destination!

The recognized nurseries of tuberculosis are within doors, usually dwellings or private residences that have sheltered or are sheltering consumptives, whose infectious sputum has been improperly cared for and, becoming dry, has contaminated carpets, hangings, upholstered furniture, etc., and which together with domestic dust is kept more or less constantly in motion through the household operations of sweeping and dusting, by walking, dancing, etc., thus inducing the disease in the healthy and reinfecting the sick who may be on the road to recovery.

Here, then, are the two crucial points in the sanitation of tuberculosis, first, the immediate unsparing destruction of everything coughed or spat out by consumptives or those suspected to be such; and, second, the disuse forthwith in homes, and elsewhere that people assemble, of all means by which dust is set into free motion—in short the introduction and use of dustless methods of cleaning in households, schools, hotels, clubs, theatres, business houses, etc., and the total banishment therefrom of the ordinary broom and feather duster, and implements of like kind.

By the application of these two fundamental reforms the great highways on which tuberculosis moves to attack human populations will be effectually closed, and while there may yet remain some concealed routes and by-paths of morbid approach still the main avenues will have been guarded and the desolating plague of to-day will then sink to inconsiderable proportions as a factor of mortality in every country that claims to be civilized and enlightened.

The realization of these reforms, however, is contingent on the thorough spread among all the people of a knowledge of the nature of the disease, and this demands a persistent campaign of education by means of the public press united with the influence of well-conducted sanatoriums and other like institutions established for the healing and teaching of the tuberculous sick.

EARLY DIAGNOSIS OF TUBERCULOSIS OF THE LUNGS.*

BY LOUIS M. WARFIELD, M. D., ST. LOUIS, MO.

It seems superfluous to emphasize the importance of the diagnosis of tuberculosis of the lungs in the incipient stage. When we remember, however, that the cure of the patient depends largely on the recognition of the disease at the earliest possible moment, the responsibility that rests on our shoulders is truly great. If the medical profession would adopt for its motto, "On the bare skin only" many a life would be saved.

The classification adopted by the National Association for the Study and Prevention of Tuberculosis includes three stages of tuberculosis of the lungs. Only the first stage concerns us, and only the symptoms and signs of this stage will be dealt with in this paper.

Incipient (favorable) tuberculosis is defined as "slight lesion in the form of infiltration limited to the apex or a small portion of one lobe. No tuberculous complications. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbances or rapid loss of weight). Slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours, especially after rest. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent."

There can be no doubt that some persons may have all the symptoms above enumerated and recover completely without being aware that they had incipient tuberculosis. Post mortem findings show that from 50 per cent to 75 per cent. of men over 45 years of age, who die of other diseases have one or more healed foci of tuberculosis in the lung. The tendency of tubercle is to retrogression and ultimate healing with scar formation. Moreover no chronic disease is as curable as is tuberculosis of the lungs if recognized early before tuberculous complications and secondary infection have set in. We repeat that the importance of the early recognition of lung tuberculosis in the prognosis of the disease cannot be too much emphasized.

Clinicians recognize a pretuberculous stage. That is a condition of lowered vitality or diminished resisting power of the body and consequently an increased susceptibility to infection with the tubercle bacillus. This susceptibility to infection, not necessarily to tuberculosis, may be transmitted from unhealthy parents, or it may be acquired by abuse of the laws of health, or it may follow certain diseases.

The symptoms of early tuberculosis are at best only suggestive. They are the sign posts that show us the way to follow. The onset is often very insidious. So-called neurasthenia is not infrequently

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incipient tuberculosis. Malaise, slight indisposition and a constant tired feeling, a disinclination to carry out what was previously done gladly, may be the first symptoms. A persistently rapid pulse, especially while at rest is suggestive. There may be a few tenths of a degree to a degree or more of fever every afternoon, in women, especially during the menstrual period. The first intimation of illness may even be a condition mistaken for malarial fever, and a large hemorrhage may be the first intimation that the patient has that he is not well. One of the Hippocratic aphorisms is "From the spitting of blood comes a spitting of pus." If an apparently well individual gives a history of recent blood spitting, and no varicose can be found in the nose or mouth, and the gums are healthy, the blood does not come from the stomach but from the lungs, and in almost every case, one might say every case, it means tuberculosis of the lungs.

Cough is the most common symptom of onset. The persistent morning cough is very significant. Out of 154 cases seen at the Clinics for Communicable Lung Diseases in St. Louis since July, 1906, 93 (60.4 per cent) gave a history of cough, as the first symptom. In 23 (15 per cent.) a hemorrhage was the first intimation of trouble. Nineteen (12.3 per cent.) gave a history of general malaise followed by a slight cough which gradually grew worse. The disease followed pleurisy with effusion in 6 cases, and pneumonia in 5 cases. Dry pleurisy, typhoid fever, whooping cough malaria (?), tuberculous glands of the neck, diabetes mellitus, preceded in one case each the tuberculosis. These cases for the most part were well advanced at the time of first visit to the clinic. Unless the first symptom is hæmoptysis, the symptomatology of early tuberculosis is very vague.

Careful objective examination of the patient and intelligent interpretation of the physical signs are all important. We speak of closed and open lesions, the former supposedly surrounded by a fibrous capsule, the latter with no definite boundary in the lung tissue. To examine a patient carefully requires the following: Bare chest; position in a good light; time and patience; careful observation with trained eye, ear and touch, aided by marking with a skin pencil.

Inspection: On quiet inspiration there is often a very slight lagging behind of the affected apex; there may be slight prominence of the clavicle with deepening of the supra-clavicle fossa. Not infrequently one notes sweating from the axillæ during examination. Dilatation of the pupil of the affected side is a sign too inconstant to be of any value. I have looked for it and have not found it in just the cases where it might have helped. Mensuration at this stage is of no special value. Frequently, however, the chest expansion is below normal. Palpation frequently confirms inspection in regard to the lessened excursion at the affected side. The early infiltration in the lung gives as a rule an increased vocal fremitus, and in skilled hands it is a valuable sign. However, it must be remembered that

normally the fremitus at the right apex is greater than the left due to the high origin of the eparterial bronchus. Percussion gives most valuable data. Cabot states that normally the note at right apex is slightly higher pitched than at the left apex. This is doubtful. Possibly when such is found in adults it represents a small healed lesion that ran its course unknown to the patient. The spot where one usually finds the earliest change is at the posterior apex opposite the eighth cervical and first dorsal vertibræ, two to three fingers breadth from the spine. With the patient sitting on a stool, the arms folded and the head slightly bent forward very light percussion will bring out the finest grades of sound, and the plessimeter finger will be able to feel the difference.

A sign long used by the Germans, described particularly by Kroenig, and recently emphasized by Minor, is the percussion of the apical outline. (See *Amer. Jour. Med. Sci.* October, 1906, p. 522). This has given me valuable data, and personally, I believe that the careful marking out with blue pencil of the limits of this resonance is the most important sign obtained by percussion. As a rule the inner line is the one affected, the line being, so to speak, dislocated outward. Roughly this line starts about two cm. external to the sternoclavicular joint and courses over the neck with the concavity outward to the first dorsal vertebra. The outer line with the concavity outward runs from the junction of the outer and middle thirds of the clavicle over the shoulder to the middle of the spine of the scapula. The careful outlining of this resonance by light percussion will save many an error.

Auscultation of the two sides, carefully comparing them, is probably for most of us the measure of the greatest value. The tubercles in the lung cause slight restriction of the lumina of the finer bronchioles interfering with the elasticity of the part, and the irregular expansion of the diseased part causes a prolongation of the inspiratory murmur or produces a series of jerky sounds known as cogwheel inspiration. The expiration is also prolonged producing the bronchovesicular type of respiration. The French call attention to a sign that is briefly noted above; viz: the modification of inspiration. The patient stripped, rests his back against the wall; the observer listens only to inspiration, quickly comparing corresponding points on the two sides. The difference is either a slightly roughened, a lower pitched, or an obscure inspiration on the affected side. The indefinite character of the respiratory murmur is of prime importance. Over the early lesion is heard also increased vocal resonance, bronchophony. If the process has reached the stage where there is slight catarrh of the finer tubes, one may catch an occasional crepitant or subcrepitant rale at the end of deep inspiration or the beginning of expiration. Cough sometimes brings these rales out more clearly.

Special Measures: In this stage it has not been proven that the X-ray is of any value. When the process has advanced far enough to cast a shadow, it can always be made out by careful physical examination.

Tuberculin: In this we have practically a sure means of diagnosis, but it should never be used until, after careful and repeated examinations, a diagnosis cannot be made. Used under these circumstances I believe it is of great value. The rise of temperature that accompanies the reaction is no more important than the changes that take place in the local lesion consisting of catarrhal processes that can be recognized by percussion and auscultation.

Opsonic Index: Wright of London and his pupils claim that a low tuberculo-opsonic index in a suspected case is a valuable addition to our means of diagnosis. Unfortunately the estimation of the index requires special technique and at present is only of value in the hands of trained laboratory specialists, and even in such hands its value is questioned.

In doubtful cases it is sometimes of value to administer potassium iodide for a day or two. This frequently brings out rales where none were formerly present. It must be also remembered that the state of the weather has its influence on what one hears, and also that prolonged percussion of a spot changes the note from an impaired resonance to a clear resonance, the so-called "lung reflex."

Tubercle Bacilli if found make the diagnosis certain, but for the best interests of the patient a diagnosis should be made long before ulceration and expulsion of bacilli has occurred. Mueller (*Muenchener Med. Wochenschrift*, 1901, p. 1999) recommends the Preisnitz compress applied at night and a cold spray to the chest the following morning. The moist warmth causes a secretion and the cold causes violent expulsion effects that not infrequently bring up sputum in which bacilli can be found.

Finally, the diagnosis of incipient pulmonary tuberculosis presents many difficulties, but as the favorable prognosis depends so largely on the earliest possible diagnosis we should never salve our consciences, and comfort our patients by telling them they have only catarrh of the lungs or stomach, but we should carefully inquire into the history and examine every patient until we have satisfied ourselves of his true condition. The fact that tuberculosis of the lungs is such a common condition should make us bear in mind that the best attitude we can assume towards the patient is to assume that he is tuberculous until we can prove the contrary.

3806 Washington Ave., St. Louis.

DUTY OF THE GENERAL PRACTITIONER IN TUBERCULOSIS.*

BY W. S. ALLEE, M. D., OLEAN, MO.

One of the great problems before our profession for urgent solution is how to limit the destructive effects of tuberculosis. The general practitioner who does his full duty must make an aggressive fight for reform from the many foolish habits which lead to practices that are almost criminal when the evil effects upon the general public are considered. The fearful loss of life and capacity for productive work caused by tuberculosis is sufficient excuse for iteration and reiteration of what we, as medical men and would be benefactors, can and ought to do toward limiting or controlling the ravages of this disease. No great reform or material results can be expected in this or any other matter affecting the general public unless it is persistently pushed from the forum or by the press.

I shall refer exclusively to pulmonary tuberculosis on account of its greater prevalence and more serious results and because it is the form most frequently seen and treated by the general practitioner.

Our duty to mankind demands that we make greater efforts to teach our patrons how they may protect themselves from the infection of this dreadful disease. Unless you deny the teaching of statistics it is hard to comprehend our comparative indifference and lack of any concerted action in efforts to control the ravages of this "great white plague." Familiarity with danger breeds contempt alike for its source and results, which possibly explains the lack of vigorous action on the part of the physicians and laymen in attempting to limit the spread of tuberculosis.

While there are innumerable duties confronting the practitioner, I shall only mention the more important, and what I conceive to be those in which we are most negligent. The first and most important duty, I take it, is to fit ourselves to make an early diagnosis. Delay in making a diagnosis and evading the importunities of the patient and friends to know the nature of his ailment, until the laity have recognized and pronounced his disease consumption, is a fatal mistake. The public, generally speaking, have only known of the hopeless cases, those in whom irreparable damage had been done to lung structure. These cases all end in disaster and as a consequence mislead very intelligent persons into the belief that pulmonary tuberculosis is always a fatal disease. I believe that laymen and most physicians have an exaggerated view of the mortality of tuberculosis as compared with the morbidity, which leads too often to a vacillating

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policy in treatment and frequently deprives a patient of good chances for recovery. If we could but convince the thinking and influential portion of the general public that cancer and tuberculosis are, in a measure, local diseases and curable in the early stages, untold misery and loss of precious lives would result therefrom. We can best bring about a change of feeling and action by early recognizing and naming the disease.

We should make ourselves proficient in physical diagnosis. It is quite common for doctors to send the sputum of a patient for examination and report as to whether it contain tubercle bacilli when the most superficial knowledge of physical signs, easily elicited, would settle the diagnosis beyond doubt. If the general practitioner is to hold his field against farther encroachments of the specialist he must do better work in this line so that he may merit the confidence of his patients. I have no hesitancy in saying to you that, either from ignorance or indifference, an early diagnosis in consumption is rare. It is our duty to study well the symptoms of incipient tuberculosis. These symptoms may give reliable warning ere the change in structure can be detected by physical signs, or while the bacilli may yet be encapsulated and not found in the sputum. We must learn that just as certainly as uterine hemorrhage after the menopause means cancer, in a majority of instances, so does pulmonary hemorrhage mean tuberculosis. We must learn to regard with suspicion a functional stomach trouble with an accelerated pulse and slight elevation of evening temperature; always view with apprehension a loss of weight unexplained by trivial causes. It is our duty to become expert diagnosticians and show confidence in our judgment by naming the disease and acting boldly. An indifferent statement to a patient to the effect that he has a little lung trouble when there is good reason to believe that he has tuberculosis, is unpardonable because it leads to that state of indifference which favors neglect of treatment, including hygienic living, until the patient's chances for cure are greatly lessened; it also increases the danger of infecting other members of his family and friends. Having made our diagnosis the patient should be informed that he has tuberculosis, which can be done without depriving him of the hope of eventual recovery.

The patient's well being, and protection to his friends, demand absolute cleanliness and especially the avoidance of soiling clothing with sputum. As a rule, to which there are few exceptions, each infected person acquired his disease from some other individual through ignorance or indifference upon the part of the latter. This statement does not warrant that phthisio-phobia which has become too common, often leading to action that works hardship or cruelty to the sick without the possibility of adding to the protection of the well. The consumptive who is clean in person and habits, disposing of his sputum as experience has shown can be done with safety to others, is not a

menace to his family and friends and sensible persons will not treat him as such. We must teach our patrons how they may be protected from the danger of association with the tuberculous. We must see to the destruction of the sputum. It is not enough to tell the patient to spit in a cup, we must procure the cup or some other satisfactory device for him and teach him how it is to be used. Your duty is not done by telling him to destroy the sputum. See that he does it. The best protection to the public against the evil effects of promiscuous spitting is an appeal to the selfishness of the individual patient. If he is taught that his disease is infectious and cleanliness is his only protection against autoinfection and consequent loss of all hope of eventual recovery it will have a restraining influence that is not attainable in any other way. Infected persons should never spit on the floor, on a paper nor in an open cuspidor. It is rather a common habit for persons in an advanced stage, after they are confined to the house and to the bed much of the time, to spit on a newspaper spread upon the bed or on the floor by the bedside. I have seen a paper almost covered with sputum and great numbers of houseflies feeding on it while the good housewife was preparing a meal in an adjoining room to which these flies had free access. Food prepared and eaten under such surroundings is a menace to both sick and well.

Having taught the patient and his immediate family that tuberculosis is a communicable disease and the most urgent rules to prevent spreading the infection, we may by proper effort, enlist the more intelligent members of the community in a crusade against the spread of this scourge. It is well to enlist the local ministers and teachers in our efforts to enlighten the populace on the methods that are working such wonders in the few localities where systematized efforts have been made by rational means to check the ravages of tuberculosis. The physician who is well informed as to the cause and prevention of tuberculosis will always get a patient hearing from persons of intelligence and influence in their communities and it is well to talk with them, not only about the best methods to prevent the disease, but also to discuss the effects of climate and heredity, the two most overworked factors and the least understood by the laity and the profession as well. This question of climate is one of the problems for the general practitioner to meet and we ought to give it careful study with a view of doing full justice to our patrons. The belief is quite general with the laity, and is much too common with a large number in our profession, that a change of climate is one of the first considerations in an effort at cure in every case of tuberculosis where it is possible for the patient to adjust his business and finances to such change, and is frequently advised when such adjustment is wholly impracticable. There are sections blessed with a more equable climate than we can boast of in Missouri, where they have more days of sunshine, especially during the winter months, and these are real advantages that render such

locations especially favorable for the consumptive. But there are so many reasons why the average person is debarred from the good effects of an ideal climate that we must confine ourselves to the practicable or home climate. Happily it has been demonstrated beyond any question that tuberculosis can be cured in any climate. An abundance of good pure air anywhere, with a reasonable amount of sunshine, affords a climate that will give us good results provided all other necessities are to be had as adjuvants.

A great majority in our profession yet attach an undue importance to heredity. As a result the laity have a most unfortunate understanding as to this influence in the causation and prognosis of tuberculosis. Many intelligent persons consider it equivalent to a death warrant to pronounce one infected with tuberculosis who may have lost a parent or other members of his immediate family from this disease. At most, one only inherits a vulnerable constitution and lack of tissue resistance, or that peculiar physical condition or formation which tends to develop a favorable soil for lodgement of the tubercle bacilli.

Treatment is what most concerns the individual patient. Here it is our duty to strenuously combat the idea so prevalent among a certain class of physicians that drugs are of but little value. While there are no specifics for tuberculosis, the skillful use of the preparations of iron, creosote, cod liver oil, guaiacol and the hypophosphites with such other remedies as will meet special indications, will not only add to the comfort and hasten the recovery of incipient cases, but sometimes snatches from the grave the well advanced cases and will always prolong the life and usefulness of the individual for varying periods of time. The therapeutic nihilist has no place here, he is an abomination before God and man and should be banished to the land of darkness accompanied by the doctor who ascribes every ache, pain and complication arising during the course of a disease to "catching cold." The most important point in treatment and that to which the general practitioner has subjected himself to criticism is, in my estimation, the matter of open air treatment. Our medical students are taught that fresh air and sunshine are essential in the treatment of all diseases and particularly so in pulmonary troubles and yet we find them treating pneumonia and consumption in hot, unventilated rooms and actually going around the house to come in at the kitchen door to prevent a little fresh air from entering the room for fear the patient might take cold. While making notes for this paper I visited with an able and successful practitioner, a young man with pneumonia. The patient was in the eighth day of his illness and a very sick man. There were in the room with him seven other persons and, by measurement this room contained less than 1800 cubic feet of air space (14x16x8). The doors and windows were all closed, against the advice of the attending physician. The fear that he might take cold was

their excuse for not complying with the doctor's directions as to ventilation. The patient was so distressed in his breathing that I took the responsibility to open an outside door and in three minutes he breathed better and felt better. He was greatly improved the next day and recovered without farther unpleasant symptoms. These people were intelligent, possibly above the average in their immediate locality, and a fair sample of what we must contend with in central Missouri. In their mistaken zeal to protect the sick from what they fancied might be the evil effects of outside air, they were unwittingly killing the idol of their family. We talk glibly about giving the open air treatment and yet deep down in our hearts we fear it. If we were to take a census of the number of patients of the doctors here today who are taking the open air treatment I predict the result would be startling and discouraging in the extreme to those who believe such treatment essential to success. The fact is we haven't the moral courage to give the open air treatment a fair trial. We are afraid that if any complications should arise, knowing the prejudice of the laity and so many physicians against fresh air, and especially that dreadful night air, that we will be blamed and our reputations injured. So long as this cowardice exists on our part, just so long will we fail in our duty to mankind as physicians. Our first duty is to convince ourselves that it is not dangerous to sleep outdoors and that night air is as good as day air; then see that our patients sleep and live outdoors, or at least breathe an outdoor atmosphere. You cannot trust the average patient nor his family to ventilate a room properly; you must do this yourself, or see that it is done. It is our duty to look after the technic of the fresh air treatment just as carefully as we would to the preparation of our instruments and the patient for an abdominal operation. The stake is the same, the life of the patient and our professional reputation.

CONSUMPTION AND CIVILIZATION.*

BY ROBERT O. CROSS, M. D., KANSAS CITY, MO.

The history of pulmonary consumption is contemporaneous with that of medicine and civilization, and, in all probability, has existed as long as man has lived gregariously in established communities. The disease was quite familiar to the earlier physicians, Hippocrates, Galen, Celcus and others, but, owing to their lack of knowledge of pathological anatomy, they left us but an indistinct description, confounding it with other respiratory diseases.

Morton, in 1688, in his *Phthisiologia*, gave us our modern view of tuberculosis. Koch, in 1882, announced to the medical world his discovery of the true cause of tuberculosis, the tubercle bacillus, thereby proving for all time the unity of this disease and disproving the old notion that it was an affliction of providence; at the same time exploding the modern idea of an inherited and fatal malady.

The effects of consumption on our civilization can, in a measure, be told by history and statistics. Without doubt, one of every three and a half deaths, between the ages of twenty and forty is caused by tuberculosis.

It is during adult life that consumption does its deadly work, that age when the young adult is fired by ambition and love, the age when we all feel the desire to do great and noble things, the age when love for the opposite sex is at its maximum and all entertain a wholesome anticipation of matrimony. The time between twenty and forty is the age when husbands should be strong to work for their families, when wives should have the strength to bear and rear their children, when men and women, generally, should have the capacity, mental and physical, to accomplish the world's work.

Literature and the arts have given many hostages to this dragon of disease, Stevenson, Keats, Ward, Chopin and many others. For the imperishable heritage these geniuses have left civilization, we would think those of their generation would have at least supplied them with the plain necessities of life. No, these who could best appreciate the good and beautiful things—strange irony of fate—received the least, many of them dying in comparative poverty and want, while those who received this gracious heritage appreciate it not, because they cannot eat it or put it to material use.

Computing in dollars and cents the cost of this disease is impossible, because of its magnitude, but for purposes of comparison we can conservatively say that pulmonary consumption has cost more than all the wars of history. Wars are not like our plague, with us always. The cost in dollars and cents is the least of the cost. We can-

*Read before the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

not compute in money what this scourge has cost the human race in sorrow and in suffering. This can be computed only by the devastated homes and hearts that are left behind by its victims.

The Remedy: Pulmonary tuberculosis is a specific infectious and communicable disease caused solely by the tubercle bacillus gaining entrance to its human host by the air we breathe, the food we eat, or a break in the outer covering of the body.

This germ is of universal prevalence and therefore any factor that enters into the multiplication and implantation of this germ in its final host, increases the number of cases.

What are some of these factors? In the judgment of our most authentic authorities this disease is preventable. It does not require very much authority to convince anyone of ordinary intelligence of the truth of this proposition. Having a specific cause which produces a certain effect, find a way to destroy the cause, and the effects can be represented by the minus sign. Begging the pardon of this learned association for going over the ground they have, perhaps, gone over again and again, I will take up some of your time in enumerating some of the most important destroyable causes of this world-wide plague.

Education of Physicians: Let me quote the words of Robert Koch, who went so far as to declare that the disease would not cease to exist, or to materially decrease in prevalence, until the present generation of medical men had ceased to live. It may be presumptuous in me to say that we will reach the goal that we are striving for only when all medical men know that pulmonary tuberculosis is an infectious, communicable and an entirely preventable disease, and that they be willing to go into the highways and byways preaching the doctrine of prevention.

Public Sanitariums: Public sanitariums, when they are managed for the benefit of the diseased public, and not as political kindergartens and dumping grounds for party workers and favorites, will make for the elimination of this disease to their capacity for the care of the afflicted.

Every man, woman or child improved or cured in these institutions will be a teacher of the doctrine of prevention, and will be a qualified teacher. Every one cared for by these institutions removes a source of infection that endangers the health and life of his friends and neighbors.

Every fair-minded person must admit that the benefits conferred by tuberculosis sanitariums is far above and beyond their cost in dollars and cents. Even if we had a method by which we could compute the relief of human sorrow and suffering, every afflicted one sent home to his joyful friends and relatives is an example of God's own charity.

It is our duty as physicians to work and convince the lawmakers

that it is their duty to establish and maintain a sufficient number of sanitariums to care for every case of consumption, where the patient is not able to care for himself, convincing them that the benefit derived from the producing capacity of each individual will be of great advantage to the state.

Anti-Spitting Law:—We should work for the enactment of laws that will prevent spitting in all public places, such as side-walks, street cars and factories. In the large cities of this country, we should, in congested portions, furnish spittoons, filled at all times, with running water, for this great liberty-loving American people will not swallow sputum, no matter how many laws are passed. All consumptives should be furnished with and taught how to use sanitary spit cups. This may sound to many of you somewhat far-fetched, but I firmly believe that ninety-nine per cent of our consumptives could be taught to see this in the proper light, and would willingly use spit cups for their own protection, at least.

Factory Inspection and Control: In these United States there are thousands of factories and sweat shops that are this day harboring many cases of consumption. These cases are a fearful and direct menace to all the other operatives. There are but few factories in the country controlled in any manner by law. In fact, there are but few, where even instructions are given, which, in any way, would protect the well ones. The abuses to human health, life and happiness present in American manufacturing plants shriek for redress at our hands.

The provisions in nearly all factories for sunlight, fresh air and control of the dust can be placed nearly, if not quite, at zero.

The sweat shop law which has been enacted in some of our states is not enforced. One has but to take a trip to the tenement houses of our great cities, where one in three of the adult population die of consumption, to know the loathsome horror of living without fresh air and sunlight. What laws have we passed to rid pottery and brass workers, stone cutters or cigarmakers of the dust which is the existing cause of so many fatal cases of this disease? Practically, none.

Let us for a moment think of that vast army of men and women endowed with that inalienable right to life of which our publicists talk so glibly. These are our galley slaves, chained in dark, unventilated, filthy dens, working away their lives that we, the great public, may have luxuries which have become necessities; never thinking, never caring that more than four-fifths of this suffering and these deaths are preventable. Who is to blame? Who in the end must answer for these horrors? Not they who are ignorant of the knowledge that means life, but we who have this knowledge and have no time or inclination to care. Who can say how many lives could be saved if we would do our duty, and instead of clap-

ping our hands and holding our breath, when millions upon millions are given for libraries, institutions of learning and empty medals for heroism; we should try to convince our over rich that sanitariums and permanently established free lectures on hygiene by competent teachers would in the end make more for our twentieth century civilization. If we can do this, we can write on this page that we have saved from sacrifice to the god of greed uncounted thousands and proved to all mankind that the wages of life is not death.

Public Schools:—In a great many of our public schools there are teachers suffering from consumption, and I think I can conservatively say that in seventy-five per cent. of all our schools we will find in attendance pupils who are afflicted. Here is another crying need for a law and its enforcement. Every teacher should at the beginning of the school year be examined by a competent physician and those found infected at once be forbidden to teach.

All school children should also be examined once each year and those diseased should be forbidden to again attend school until pronounced well. Why? First, all consumptives confined in our poorly ventilated and cleansed school-houses are dangerous to the health and life of their mates. Second, neither the teacher nor the pupil, if confined by the surroundings of the average school-house, has hardly a single chance of recovery.

All school buildings in cities should be thoroughly cleansed once a month during the school term and in the country once a term. No public meetings, whatsoever, especially in the country, should be held in the school building, for in all public gatherings we shall find consumptives and as certain as they are present, they will deposit their sputum in out of the way places and corners to dry and become germladen dust to find a host in the lungs of some delicate child.

In all schools the curriculum should embrace the study of hygiene, so that our future citizens may know the value of right living even though we should have to cut out some higher mathematics and dead languages.

Regulations of Dairies:—It is an admitted fact that bovine tuberculosis can be conveyed to the human host through the milk or meat of the animal. We should have passed a law compelling the inspection of all herds of cattle and when one is found diseased, this animal should be at once destroyed, the state in some measure, at least, assuming a part of the cost.

Public Conveyances:—The owners of all public carriages should be by law compelled to keep these carriages clean and not, as now in some cities, in a state of extreme filthiness. All upholstered carriages should be fumigated at the end of each return journey.

Registration and Reporting:—I have tried to consider above, in a brief way, some of the causes which can be remedied. Tuberculosis is in eighty-five per cent. of all cases a house bred disease, that is, the disease has its origin in or about our homes.

To control, prevent and to finally wipe out this plague from the face of the earth, we must know and have control of each case as soon as diagnosed. Therefore, we should have every case reported and registered by the proper authorities, namely, the boards of health. These boards should have the authority and the finances to carry out all means to prevent the spread from the sick to the healthy individual.

Nearly, if not quite all, new cases of this disease are contracted from some person or animal suffering from the disease. What can be more evident than the proposition: Prevent each case from infecting a healthy man or animal and you have, in its entirety, prevented the disease. It is the consensus of opinion among those who are devoting their time to this problem, that the solution lies not in the cure of individual cases but in the prevention of the spread from the sick to the well, of the infection.

In spite of the mawkish arguments against registration, such as interfering with personal liberty and branding with the brand of an incurable contagious disease, which, by the way, is not true, the time is coming and quickly when all cases will be reported and properly cared for. Along this line we should, in all states, cities, townships, and hamlets, have laws something like the following:

First. Health officers will hereafter register the name, address, sex and age of every person suffering from tuberculosis within their respective jurisdictions, so far as such information can be obtained. This department requires that hereafter all physicians will forward such information to the health officials in the respective jurisdictions in which such cases may occur. The information will be solely for the use of health officers, and in no case will visits be made to such persons by public officials, nor will any public sanitary surveillance of such patients be assumed, unless the patient resides in a tenement-house, boarding-house or hotel, or unless the attending physician requests that an inspection be made of the premises; and in no case where the person resides in a tenement-house, boarding-house or hotel, if the physician requests that no visits be made by inspectors, and is willing himself to deliver circulars of information or furnish such equivalent information as is required to prevent the extension of the disease to others.

Second. When a local health officer obtains knowledge of the existence of cases of pulmonary tuberculosis residing in tenement-houses, boarding-houses or hotels, unless the case has been reported by a physician, and the latter requests that no visits be made, inspectors will visit the premises and family, will leave circulars of information and instruct the person suffering from consumption and the family concerning the measures which should be taken to guard against the spread of the disease; and if it is considered necessary, will make such recommendations for the cleaning or renovating of

the apartment as may be required to render it free from contagion.

Third. In all cases where it comes to the knowledge of a local health officer that premises which have been occupied by consumptives have been vacated by death or removal an inspector will visit the premises and direct the removal of infected articles, such as carpets, rugs or bedding for disinfection, and will make such written recommendations to his immediate superior, concerning the cleaning and renovation of the apartment as may be required. An order embodying these recommendations will then be issued to the owner of the premises and compliance with this order will be enforced for sanitary reasons. No other persons than those there residing at the time will be allowed to occupy such apartments until the order of the health officer has been complied with.

Fourth. The authorities of all public institutions under the jurisdiction of the state departments of health, such as hospitals, dispensaries, asylums, prisons, and homes shall be required to furnish to the department of health of the different states the name and last address of every consumptive coming under observation, within seven days of such time; and all cases that remain in above institutions must be kept in wards or rooms by themselves, and those uncured leaving the institutions must give home address and the State Board of Health must be notified of the same.*

We have confronting us a problem. How we solve this problem will leave an indelible mark upon the civilization of this century as no other civic subject now before us can.

I would ask this body of men and women who are the types of our highest civilization; shall we take it up and fight, and preach our doctrines of prevention throughout this land and reach the only logical result, wiping from the face of this beautiful world of ours that cankered sore that today is causing more sorrow and suffering than any other malign influence? This sore lives and breathes in the strongholds of our civilization—our homes.

If it be not presumption on my part, I would like to offer a suggestion to this section, putting it, perhaps, in the form of a resolution, as follows: that the president of this body appoint a committee of five members to abstract the papers read in this symposium today that have reference to the Prevention of Pulmonary Tuberculosis, edit, publish and circulate the same. This Committee to have full powers in reference to all matters pertaining to the above. Also, that each component county society be requested to appropriate for the use of this committee a certain amount of money to be pro-rated according to the number of members; this money to be collected if possible from the general public. Let me ask again, shall we do something like this, or shall we do as we have done in the past, go into our shells and say:

"I have the knowledge, I have the power, but am I my brother's keeper?"

317 Rialto Bldg.

*New York State Board of Health.

THE NEED OF LOCAL ORGANIZATION IN THE FIGHT AGAINST CONSUMPTION.*

BY FRANK DEVILBISS, M. D., EUGENE, MO.

This is a time when organization is the order of the day; when men interested in a similar line seek uniformity of action and concentration of energy for the accomplishment of their purposes. Whether the end sought be a higher standard in professional efficiency or mechanical trades, whether in commercial pursuits or ordinary labor, experience has proven that those similarly interested must co-operate, that a mutual understanding or agreement must be had, if they would reach the goal of their ambition.

While this is true in the ordinary vocations, in which we are engaged, it applies with infinitely more emphasis in matters which affect the public, in which the rank and file of the race are to change their habits, customs or in any way their manner of living. In these things without organization what's "everybody's business" becomes "nobody's business," each leaving to another the duties that devolve upon us all and avoid the necessary effort to produce results. This applies to us as a profession in our fight against tuberculosis. The frequency and high mortality of this disease together with some prevailing public opinions that are erroneous makes it necessary to act uniformly and efficiently if the best results are to be obtained. And then the victim of tuberculosis is frequently not informed as to the nature of his ailment. Neither are the members of his household always apprised of the fact but are kept in the dark and the patient goes on from bad to worse, a constant menace to the health of those around him through ignorance which is sometimes the result of information withheld by the attending physician. Granting that the patient and his immediate household have been informed as to the nature of the malady, as a rule precautions are not taken to protect those exposed, the rank and file are not informed along this line, and thus from one to another the disease spreads until no one can say he knows he will not be a victim of this terrible malady. The one crying need looking to the betterment of this condition of affairs is organization; effort that has system to it; energy that has concentration. Because of a lack of some one in each community whose duty it is to furnish the necessary information to those affected with or exposed to tuberculosis many sicken and die, whose lives might be saved.

If this "Great White Plague," is to be driven from the race, if even its devastation is to be curtailed, the medical profession must do it. And this cannot be done by its individual members working singly and alone, but by the whole profession acting together along well defined and systematic lines to the end that some knowledge of the cause, prevention and proper management of the disease may be given

to all the people and especially to every member of the medical profession and to all families wherein the disease has found a lodgment. The state, the nation, the whole race looks to the medical profession for relief. We know that it is largely a preventable disease, but this information is of little use unless the race is informed as to how to prevent it and act in accord with their information.

When we consider the fact that most of the victims of tuberculosis are ignorant of the dangers they are constantly in of re-infecting themselves and of infecting others (many of whom are not much concerned about the latter,) we realize that it is an Herculean task to carry the necessary information into the home of every tuberculosis patient and obtain intelligent co-operation, but I might say in passing that the results are well worth the effort, both from an economic and humanitarian standpoint.

In the smaller cities and in the various counties it would, in my judgment, be difficult to find a sufficient number of physicians who are interested in this matter to effect a local organization devoted to this subject alone, but it occurs to me that wherever there is a local medical society there could be and should be selected from its membership a committee consisting of one or more physicians whose duty it is to keep tab on all cases of tuberculosis within the jurisdiction of its local medical society. This committee should affiliate and be in touch with societies in the large cities whose purpose is for the prevention of tuberculosis so that literature bearing upon the subject may be furnished to those directly exposed and to the public in general. Also that the committee may furnish to these societies and through them to the profession in general any information that may come to it as a result of observation, investigation or experience. It should be the duty of every physician to report to this committee every case of tuberculosis coming under his care, together with such correlative facts such as unsanitary surroundings, grade of intelligence, number and age of those exposed, their financial ability and any other information or suggestions that would be beneficial and protective to those associated with the victim. This may not be the best way to accomplish this and I only offer it as a suggestion, but certainly some organized effort is imperative if we are to obtain the best results.

CIVIC RESPONSIBILITIES.*

BY WILLIAM PORTER, M. D., ST. LOUIS.

The panorama of tuberculosis through the last two decades is a series of pictures in which light and shade are curiously commingled. The earlier representations were dark enough and it was not till the true specific cause and the modes of communication were discovered that the spirit of progress touched the portraiture in lighter shade. So rapid are the changes that were it not for the clinical picture, we might think that we were dealing with a new disease. Dr. Darlington, Health Commissioner of New York says: "Considered either in the light of political economy or of humanity, the question of tuberculosis is one of the most important questions of the day. Of the 350 who have died this day in the United States from consumption, many is the home that is left desolate, and bitter is the grief and the sorrow that has come from a death from a disease which is largely unnecessary, which may be avoided, and which through education might be stamped from the face of the earth. And what has occurred to-day, occurred yesterday, the day before, each day last week, throughout the year, and will occur every day throughout the coming year. Relentless seems this foe to humanity."

Let me give you a few figures showing the extent of this scourge. In this country at present rates, one-tenth of those now living will die from consumption. This means 7,000,000 in the United States, 500,000 in Illinois, 300,000 in Missouri and 70,000 in St. Louis, but as the urban rate is one-seventh, 100,000 is nearer the loss in our own city. In St. Louis there are probably 5,000 active cases of consumption in the different stages: in Chicago, 6,000; in Boston, 5,000, and last year in New York City, possibly because of well enforced registration laws, 28,831 cases were reported. It is estimated that there are 30,000 cases of consumption in Illinois, 20,000 in Missouri and over 10,000 in Iowa. In Illinois, with a population of 5,000,000, last year 7,000 died from consumption. Iowa lost 2,000 and our death list from this disease was over 4,000. In the United States the deaths from consumption are over 110,000 annually, or one every five minutes.

If 350 die every day from tuberculosis in the United States the number in Missouri is about 20. Multiply the 300,000 now living in Missouri, who at present rates will be victims of this disease, by two and one-half, the average length of the disease and we have the unthinkable period of 750,000 years of suffering in our own State in one generation—not to speak of the sympathy and sacrifice of those devoted by the strongest ties. These figures are as accurate as census reports and estimates based on comparative population can make them.

The economic loss is equally startling. Last year in Illinois the estimate from official statistics was \$36,551,000—not including the

*Read before the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

value of each of the 7,000 lives lost by consumption during the year. In Iowa, the annual loss is estimated to be over \$10,443,000; in Missouri \$24,000,000; In the United States the annual loss is estimated between \$350,000,000 and \$400,000,000; in Germany about 86,000,000 marks annually. I speak of it in the light of political economy says Darlington because of the importance of the life of the wage earner to the State. We call a country rich according to the amount of money in the hands of its people, and when we consider that from this one cause alone the loss of wages while ill, the expense of caring for the sick, with the extra food, the nursing, the hospital and the physician, clinics, etc., and the cost of the burial of the dead, the figures are appalling. Between the ages of 15 and 45—the age when most money is earned—the life of most wage earners—over thirty per cent. of the deaths are due to this dread disease; and while the greater portion of these die between the ages of 25 and 35 a very large proportion die between the ages of 15 and 20. If we add to the above loss of wages, sickness and death, the loss to the State from an educational standpoint, children educated at the expense of the State who have spent eight years in the public school in order to graduate, at an annual expense of at least \$50 per head, and then who die soon after they leave school, some conception may be gained of the enormous economic loss to the State.

But let us not consider it in the light of political economy alone, but from the standpoint of humanity. Think of the untold suffering and distress that have come through premature death in this way! Not only suffering through grief, for many is the wage earner who has been hurried out of the world leaving a helpless family behind him which must also be cared for by friends or by the public.

But in these later days, light has come out of darkness. With the knowledge of the specific germ has come the understanding of its control and the cure and prevention of the disease. The curability of tuberculosis in the early stages is no longer questioned by the intelligent physician and prevention is becoming a verity. Limitation has been accomplished in New York and Philadelphia of 40 per cent. in ten years. Pasteur said "It is within the power of man to stamp out all parasitic diseases from the face of the earth." Williams of London found 46 per cent. cured out of 1,000 private cases in all stages. Consumption mortality in the English Barracks has been reduced from 6.8 per 1000 to 2.5 per 1000. Flick, one of the greatest living authorities on tuberculosis says "It is one of the most curable of all diseases." From some of the European Sanatoria comes the cheerful report last year of over 80 per cent. of early cases cured and in this country, Rutland, situated in a climate heretofore considered undesirable for tubercular cases, reaches the high mark of 84 per cent. of cases cured and arrested. In Germany the decrease in the number of deaths from tuberculosis during the last ten years has been fifty per

cent. and in England about the same. In New York the death rate has fallen from 4.2 per 1000 to 2.9, a reduction of more than 40 per cent. in Philadelphia the decrease in ten years was 43 per cent.

Upon the basis of the New York and Philadelphia results, forty per cent. of the estimated 100,000 victims among those now living would be 40,000 lives saved in St. Louis alone. Forty per cent. saved of the five thousand cases now existing in St. Louis would be 2,000 less to suffer and endanger others—2,000 more breadwinners won back. It means a saving of \$9,000,000 annually to Missouri and of 50,000 lives and \$150,000,000 each year to the United States. Can Missouri, or we as citizens of Missouri, make any better investment of our time and money than the accomplishment of this object? I repeat the word “we” for somehow I have faith that in this audience are some upon whom the sense of responsibility in this matter will lead to definite, active effort for the safety and preservation of ourselves and those dear to us which is the first law of nature.

How shall the campaign against tuberculosis be successfully conducted? Mainly by education. The responsibility of the State and the citizen will only be recognized when the citizens of the State are enlightened as to the cause and methods of prevention. Our Legislators can only help us so far as the people know, who elect them.

What shall be the agents in this education? Mainly two. 1st, Local and State organizations. 2nd, Public and private sanatoria and dispensaries. I shall not speak of the first at length, for you all know it is purposed to organize a general association for the State upon the adjournment of this session and its needs and opportunities will then be set forth. May I here, however, claim your heartiest cooperation, for I have ever found that the members of the Missouri State Medical Association are ready to aid in every good work within their province, and there is none better than this. Organization means not only local interest and enlightenment as has been so ably set forth by the preceding speaker, but it meant a demand for better laws touching sanitation, inspection and registration, and the further support of the great State Sanatorium for Tuberculosis soon to be opened. May it have your help. It surely needs it.

For the prevention of tuberculosis the hospital undoubtedly is the post potent factor at our command. It helps people who are most likely to spread the disease, and it helps them at a time when their power for evil is greatest. It protects the rest of the family, by removing the source of contagion and by relieving it of a burden which has a powerful predisposing influence—a prolific cause of the spread of the disease among the poor. Hospitals are preventive in still another way. They serve as schools and propaganda in the crusade against tuberculosis. The patients who come in during periods of exacerbation often go out restored to a fair condition of health with valuable knowledge about the disease which enables them not only to preserve

the health which they have regained, but to protect themselves and others against the contagion which they still give off. They, moreover impart this knowledge to others, and thus become valuable agents in the educational movement. Even patients who come into the hospital to die, during their stay serve as object lessons to relatives and friends, and attract attention to the new ideas about the disease. The hospital also is a potent factor for the increase of scientific knowledge about tuberculosis. By this aid our knowledge of tuberculosis has been greatly augmented in the last few years, and the disease has been brought within the domain of curable diseases. We have much yet to learn, however, and for the acquisition of more knowledge we must have well equipped hospitals with modern laboratories attached.

Massachusetts erected a state sanitarium at Rutland in 1895; New York has a half million institution under way. New Jersey has appropriated \$300,000. Illinois is far along with her plan and other states are discussing the subject. Iowa has \$50,000 for like purpose. Private institutions are found in almost every large city and camp, and settlements are being everywhere located from the Adirondacks to the Mexican border, for it is now a proven fact that there is no special climate for the cure of consumption, but that it can be cured in any climate. Walsh of the John Hopkins Hospital says: Germany with only two-thirds our population, not one-tenth our area, and not one-twentieth our wealth, has more sanatoria, and is spending three times the money on them. The tuberculosis dispensaries in France or Germany are the most important elements in the crusade against tuberculosis, and we are woefully lacking in them. St. Louis should have four or five and it has but one. But the problem is being worked out.

Much of the foundation work, the hardest and most discouraging of all, has been done. In four years the fight against tuberculosis in St. Louis has been well organized and we do not fear the results. The work in the city will compare favorably with that of any city to our knowledge in the same time. In 1903 the main building of Mount St. Rose Sanatorium was completed, and since that time over 1,200 cases of tuberculosis have been cared for. Most of these were in the advanced stage of the disease, but there was the satisfaction that not only were these helped so far as possible, but that with each a focus of infection was removed from the home. It is now necessary to add a new wing which will have all the modern features of the best plans and will bring the total investment to about \$250,000. The Sanatorium is conducted by the Sister of St. Mary, with a medical director a resident physician and a full corps of consultants. Special appointments have been made to advance the bacteriological and pathological work.

Three years ago the "St. Louis Society for the Prevention of Tuberculosis" was started. Its aim was to educate the people to the necessity for a popular recognition of the dangers of consumption and

the best way to meet them. On its publicity committee are the editors of all the daily papers. Its lecture committee includes men who go when called to speak to clubs, societies and unions. It has a committee on inspection, the members of which are obligated to make reports on the sanitary conditions of factories, street cars, office buildings, etc. The Society has distributed over half a million booklets and pamphlets among the children of the public and parish schools in which work it has been greatly aided by His Grace the Archbishop of St. Louis and by the Superintendent of Schools."

More recently the "Society for the Relief of Consumptives" was organized and these two societies are now united. So far the "Relief Society" has conducted exhibitions of tents, model sick rooms, etc., in a large room given for the purpose, on one of our prominent streets, and these have been visited by large numbers of physicians, nurses and others interested. One of these tents is placed in the beautiful grounds of Mount St. Rose, where, with its occupants (two men selected from wards), it is an object lesson to the visitors.

A monthly journal, "The Relief," with a circulation of 10,000 is ably edited by Mr. Newton, secretary of the "Relief Society." Its aim is to carry needed information where most needed. In this the public press also gives every assistance.

Under the auspices of this society a head nurse with assistants is constantly employed finding cases of consumption among the poor, teaching them hygiene, ventilation, etc., instructing them in the care of the sputum, reporting each week to the medical director. This work is exceedingly valuable and is receiving the best encouragement. From one source comes an order for all the concentrated lye needed for distribution as a cleansing agent or as a germicide. From another money for a special case, from a third an order for hospital care for a man and his wife.

The Board of Health is doing all possible to aid the work. It has a special hospital for contagious diseases, mainly consumptives, and will soon provide for these latter a large commodious building on one of the most elevated parts of the city suburbs. A special clinic under the care of Dr. L. M. Warfield, assistant dispensary physician has been established and is in full force.

A special chair in one of the Universities is devoted to the teaching of the diagnosis and care of tuberculosis, one of the features being the demonstration of the value and methods of local organization.

Two important ordinances are being gradually enforced and are meeting with general support rather than with opposition. One is the ordinance against promiscuous spitting in cars, on pavements and in public places. The other is the registration act, making it compulsory that physicians report cases of tuberculosis to the Health Department and calling for disinfection, either by the house owners and certified to by the physician, or by the Health Department.

In the state much has been done. The State Medical Society makes the discussion of tuberculosis the special order for the second afternoon under direction of the committee on tuberculosis. Two years ago a resolution in this association was adopted, asking that each local society appoint a committee on tuberculosis and following that and the urgent letters recently sent out we are now ready to organize a State Association in the great cause.

Two years ago the legislature gave \$50,000 with which to start a sanatorium for incipient tuberculosis. A beautiful site was donated at Mt. Vernon in the Ozark mountains and a pavilion has been completed, ready for occupancy. The commissioners will turn the property over to the Board of Managers, just appointed. A special committee has reported in favor of \$125,000 for additional buildings. While part of this is not immediately available, there is enough to demonstrate its value to the state. It is to be regretted that the appropriation for maintenance is so inadequate for a thorough demonstration. The legislature gave \$50,000 two years ago, and this year \$125,000 for buildings. Only \$65,000 of this latter sum can be used this year, which gives us \$115,000 for building and equipment and \$10,000 was allowed this year for maintenance. The citizens of Mt. Vernon generously gave some \$6,000 and a beautiful site with water and electric light. Ten thousand dollars is a small sum for maintenance for two years salaries and an estimated deficiency weekly for each patient of \$3. So you will bear with the Board of Managers and help us in 1909.

And now with a recognition of the civic needs, what is your duty and mine as citizens of this great commonwealth. Twenty-nine states have already enlisted in the warfare, headed by the grand old Keystone State twenty years ago.

The lives of the citizens are a countries most precious possession. The citizen entrusts many of his natural rights, such as protection of life and property, to the state. You not only so entrust your life, health and happiness to the state, but you are the state and your guardianship is a sacred trust.

What is needed to win this greatest of all victories for the state, for the individual, for the home and all that home means? We need men and women. Not so much do we need money or influence, or great learning, valuable as all these are. We need consecrated, earnest lives. Not those who will encourage with a word or a benediction, but those who recognize the peril at their door, who are their brother's keeper and who feel that they are links in that great chain of social and communistic well being which makes every man a hostage for the man next to him.

If you approve the work that has been outlined, say so my brother, and give us your hand. We need that hand.

[The section then adjourned to organize the State Association for the Relief and Control of Tuberculosis in Missouri.]

DISCUSSION.

Dr. H. B. Cole, Sedalia: This is the most sensible and the best symposium to which I have ever had the pleasure of listening. The Society is certainly indebted to the committee for these excellent papers. They are timely and have been well written. I hope that we as a body will make some effort to carry out all that has been urged in these papers, especially with reference to the suggestion of Dr. Cross that some effort be made to have these papers printed and sent out among the doctors. There is one thing not mentioned in the papers of which I wish to speak. I live in a railroad town among a changing class of people and I have made it a custom to advise my patrons never to move into a house until it has been disinfected. Every family should be instructed that it is not wise to move into a house until it has been disinfected.

Dr. A. H. Vandivert, Bethany: Dr. Allen referred to the dissemination of tuberculosis through the atmosphere alone. It is important for us to recognize that it may be disseminated through the food, especially among children. The question of tuberculosis in children has not received the attention in these papers that it merits, for it is recognized that tuberculosis among children is more common than was formerly believed and it is probably more common than among adults. In reference to hygiene, nothing was said of the germs in the pus of abscesses in tuberculous children. I especially endorse what Dr. Allee has said in regard to the mistake of calling incipient tuberculosis a "cold." It is a very grave mistake that many of the profession are guilty of. I also endorse the suggestion of Dr. Cross in regard to the dissemination of literature.

Dr. J. B. Norman, California: At this time the dissemination of knowledge concerning this disease is very important especially because we are not outspoken in our diagnosis in the incipency of the disease. I have frequently found in my experience that if I diagnose tuberculosis in the incipient stage and tell the family of the fact, they regard the disease as incurable and will immediately go to another physician who will not tell them that it is tuberculosis. But he treats the patient for tuberculosis, the patient gets well and then the family says I made a mistake, that it was only a bad cold. For this reason the people should be educated on this subject and I endorse everything Dr. Allee has said.

Dr. O. H. Brown, St. Louis: Dr. Warfield has told us that the use of the opsonic index is still in its early stage; this is true, yet it has demonstrated certain facts from which we can draw some conclusions. If a person has an infection in the wrist joint and keeps it quiet the condition will likely remain localized; but if he uses it, fever will develop, the inflammation is increased, the bacterial toxins are forced by the exercise into the body fluid and there is a general toxemia as a result. If instead of an infection in the wrist, it is a case where there are tubercles in the lungs, exercise is still more likely to be followed by the absorption of toxins and we have the fever, high pulse and all those symptoms with which we are familiar; and upon this depends the degree of immunity. The precipitations in the blood which take care of the toxins, and the agglutins, and the opsonins which act on the bacteria are factors of immunity. Wright has shown that phagocytosis depends upon certain substances in the blood which unite with the bacteria, and which render the bacteria susceptible to ingestion by the leucocytes. The injection of toxins into the body or the absorption of them from a lesion in the body produces a fall in the power of immunity,—a lowered resistance to infection,—followed by an increased immunity,—a rise in the individual's resistance,—to bacteria. Our lesson is this: We wish to prevent the absorption of an excess of toxins from the lungs; and the best thing we can do to prevent

this absorption is to keep the individual as quiet as possible. The treatment then, when a tubercular patient comes to you with the symptoms of toxemia, is to put him at absolute rest. You would not think of allowing a pneumonia or typhoid patient to stay up, and you must treat this case exactly as you would any other case of acute toxemia. Then when his symptoms disappear, allow him to get up very slowly and if you see that he is getting worse put him to bed again and let him rest a few days more. The aim is to produce as high a grade of immunity at all times as possible, and at the same time to have a minimum of toxemia.

Dr. W. E. McKinley, Denver: There is something else to be done in the way of educating the public. In the district of which I am councillor I have urged that some member write a paper on the subject say quarterly, this paper to be published in the weekly press, it being indicated that this paper comes from the medical society. Then, perhaps once a year, invite the public to hear a program on this subject. For the third week in June we have arranged a program including the ministers, the press, and the general public is invited to come out to hear these papers that they may become better educated along the line of how to disinfect the sputum and protect those not infected, and how to care for those who are infected.

Dr. E. W. Shaufler, Kansas City: It seems to me that the object of this symposium was not so much to open the subject of what we shall do for the treatment of our tubercular patients as that of what we shall do for the tubercular people of the whole state, that through an organization the entire suffering mass in the state of Missouri may be relieved. Therefore I would suggest that we adjourn this session and hasten to the organization of an antituberculosis society and set the ball to rolling.

LOCAL ANESTHESIA.

BY ROBERT D. HAIRE, M. D., CLINTON, MO.

One of the most noteworthy advances in surgery during the past few years, has been the employment of local anesthesia in preference to general anesthesia in the more severe cases of minor surgery.

It is universally conceded that general anesthesia is the bugbear of modern surgery, notwithstanding the fact that refinement in methods of administration, and modification of the agents employed, have done much to lessen the discomforts and danger attending its use.

The popular mind is prejudiced against the use of chloroform and ether, and the dread thereof while often exaggerated, is not without some foundation, consequently, many operations are postponed indefinitely with great detriment to the patients because of it.

Various local anesthetics, such as cocain, eucain, ethyl chloride, etc., are in use, each serving a purpose and yet all having limitations.

It is not my intention to enter into a scientific discussion of the relative merits of the various anesthetics, but rather to present a few practical suggestions for the general country practitioner of which class I have long been a member.

*Read before the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

One of the best anesthetics, and the one in particular of which I wish to speak, is that advocated by Dr. S. G. Gant, of New York.

Briefly stated, the principle of the method is pressure analgesia, and its mode of application, distention of the area to be operated upon with sterile water, or a weak solution of some analgesic drug, according to the preference of the operator and the indications of the case.

For small areas, I use an ordinary hypodermic syringe filled with sterilized water about the temperature of the body, since that is more agreeable to the patient than cold water. For an incision through the integument only, the water is injected between the layers of the skin a few drops at a time until the tissues are distended and become anemic and glassy white in appearance. If the subcutaneous tissues are to be anesthetised, the needle is reinserted deeper and deeper until satisfactory anesthesia is produced.

This method has the advantage over drug anesthetics in that bleeding during the operation is very slight, because of local anemia due to pressure, and the post hemorrhage is correspondingly slight because the vessels seldom relax, as in the use of cocain, etc.

When it is deemed advisable to use an analgesic drug, it will be found that a very low per cent. will be equally effective and eliminate the danger from toxemia. Anesthetization with sterile water is absolutely void of toxic effects.

Recently I have used this method in a number of cases as follows:

Mrs. J., age 45. Fatty tumor, right temple, about size of hen's egg. Skin on line of incision completely anesthetized with sterile water. No pain on removing tumor except at the last where adhesions were quite pronounced.

Mrs. H., colored, age 27. Fibroid left breast, size of a hickory nut; $\frac{1}{2}$ of 1 per cent. eucaïne used; no pain whatever during entire operation.

Mrs. L., age 47. Ingrowing toe nail; rubber band applied around root of toe and 4 per cent. cocaine injected. Cotting's operation was performed and in addition one-half of the offending nail was removed. No pain whatever except that experienced by the first insertion of the hypodermic needle.

Miss L., age 19. Papilloma on the tip of nose about the size of a navy bean. Sterile water anesthesia, no pain whatever on removal.

Mr. F., age 42. External thrombotic hemorrhoid, size of a filbert and very painful. $\frac{1}{2}$ of 1 per cent. eucaïne employed, tumor incised and curretted without pain.

Mr. L., age 32. Deep perineal abscess. In this case I used nearly one-half ounce sterile water; abscess evacuated and cavity packed with iodoform gauze without pain.

Mrs. M., age 40. Mammary abscess, two drachms sterile water used in this case, abscess opened without pain.

While numerous other cases might be reported, the foregoing amply illustrate the efficiency of sterile water as a means of anesthesia, and I advocate its use (1) on account of it being absolutely harmless, producing no toxic effect whatever; (2) in cases where ordinarily no anesthesia would be used, it spares the patient pain and gives the operator more time for his work; (3) because of the small loss of blood both during and after the operation; (4) correspondingly small post-operative pain.

DISCUSSION.

Dr. M. G. Seelig, St. Louis: One phase of the local anaesthesia question only recently mentioned in surgical literature, emphasizes the question of local anesthesia from a point of view other than the purely clinical one. As you all doubtless know, from the clinical point of view, the great difficulty with the use of cocaine to produce local anesthesia has been very much the same as the difficulty encountered in the use of iodoform. Possibly there has been no greater effort in surgery in the last ten years than the attempts to secure a substitute for iodoform, in order to overcome the stench and the toxicity of this drug. The same state of affairs has existed with cocaine. It came out as the first guaranteed local anesthetic. Its toxicity and the fact that it can not be sterilized are the two drawbacks. Eucain, alypin, novocain, stovain and several others have been offered as substitutes, but most of those men who use local anesthetics have in almost all cases gravitated back to cocaine. The object of my discussion is not, however, to deal with the clinical aspect of cocaine local anesthesia, but rather to point out the service that cocaine has been in furthering surgical investigative work. It was for a long time a demonstrated fact that none of the intra-abdominal organs possessed sensory nerves. It has been an equally well demonstrated fact, that the great bugbear of abdominal disease has been the element of pain; and to those who have given any thought to this subject, it is rather paradoxical that that region of the body should be the source of the greatest pain, in which there are no sensory nerves. Of course, the abdominal organs are well supplied with nerve-branches and twigs from the sympathetic system.

The surgeon, Lenander, of Upsala, was able by the use of cocaine to demonstrate to his own satisfaction that the parietal peritoneum possessed sensory nerves, but that the abdominal viscera were devoid of these nerve filaments, and that, in order to account for the element of pain in abdominal disease, we must, in most cases, conclude that the parietal peritoneum was in some way involved. Lenander, for example, showed that although the appendix was devoid of sensory nerves, pain was nevertheless a symptom of appendicitis, owing to the fact that the diseased organ was usually accompanied by inflammation of the neighboring parietal peritoneum. It has been supposed by others that the pain of appendicitis might be due to a retroperitoneal lymphangitis, or possibly to the intumescent lymph nodes situated posterior to the base of the appendix and cecum. But the opinion has generally prevailed that the element of pain in abdominal disease was due to the involvement of the parietal peritoneum.

Lenander was able to reach his conclusions through the use of cocaine. He did it by performing abdominal operations under cocaine, eliciting no sense of pain from the patient on handling the viscera, and therefore concluding that those organs were not provided with sensory nerves. On the other hand, the handling of the parietal peritoneum invariably called forth a sense of pain.

This view stood uncontested, and what follows represents one of the most interesting phases of modern research work. Within the last eight or nine

months this question has been reopened by our great physiologist, Meltzer, of New York, who found that the reason the patients and animals experimented on had no pain after the injection of cocaine, was that the absorption of cocaine into the organism tended to abolish the pain sense, which, contrary to the views of Lenander, normally resides in all the abdominal viscera, as well as in the parietal peritoneum. He proved it by opening the abdomen of a dog under ether, then stopping the ether and allowing the dog to recover completely from the anesthetic. The animal was then submitted to irritation of the abdominal organs, and in every instance gave evidence of very acute pain. This same animal was then given a hypodermic injection of cocaine, and in a short while it was possible to manipulate the viscera freely without calling forth any evidences of pain. This report of Meltzer was submitted as a preliminary communication. I do not believe he wishes it to stand as a confirmed fact; but whether it be a confirmed fact or not, it certainly is an opinion pregnant with interest and importance from the point of view of the general effect of a drug whose main therapeutic action is usually regarded as purely local in character.

Dr. W. H. Coffey, Kansas City: I merely wanted to ask the essayist if in his experiments in local anesthesia, in place of using warm water, he ever used sterilized water put on ice and made ice cold; if so with what results?

Dr. W. J. McGill, St. Joseph: I have had some little experience in the use of local anesthesia, and in my work along rectal lines I do most of it under local anesthesia. I use a little eucaïne (1-10 of one per cent.), and it seems to me that my patients have less pain than when I use water alone. I have found it necessary in every case to continually reassure my patients that there will not be much, if any, pain. One has to use a little suggestion along with the sterile water anesthesia, and especially must keep the patient's attention distracted. I have advised and advocated the use of local anesthesia in rectal diseases, principally for the reason that the patient is not confined to the bed for a long time, and many of them will consent to have the work done at a very much earlier period than if you have to subject them to a general anesthetic. All else being equal, and the patient giving his consent, where the operation is to be severe I prefer the general anesthetic, but for the ordinary case of hemorrhoids, either internal or external, you can do very good work under local anesthesia, and the patient will probably be much better pleased.

Dr. J. D. Griffith, Kansas City: I have had a little experience in local anesthesia. I have operated for varicocele with $\frac{1}{4}$ of 1 per cent. cocaine in normal salt water, cold. The doctor just now struck the key-note on this water business, which I have used also, in the same line, and that is, the psychic argument. It has a great deal to do with it. If you can keep a man constantly employed entertaining your patient, you can do a great deal more with a local anesthetic than you can without it. Again, one of the gentlemen in the discussion, spoke of the parietal peritoneum being the point of pain, where the sensory nerves were distributed in the abdomen: this I have had demonstrated in a case of abdominal section, where the lady would not take any anesthetic; I used a solution of water along the line of the incision. She wanted to watch the operation herself. She never complained of a particle of pain during the entire handling of the abdominal organs, and the only time she complained of pain was when I handled, or came in contact with the parietal peritoneum. I have never had but the one case in which I had no anesthetic in the abdomen at all. This was a tumor which I removed.

Dr. C. Lester Hall, Kansas City: This idea that cocaine acts as a general anesthetic is a new one to me and a very beautiful one. I hope it can be demonstrated as true; but up to this time, we all know that when we are

operating under the administration of cocaine or with the infiltration of water, when we go beyond the anesthetized region, we hear a remonstrance from the patient. It certainly hurts when you get beyond the area of the cocaine. Therefore, it remains to be proven that cocaine is a general anesthetic.

Dr. John Green, Jr., St. Louis: Surgeons, particularly ophthalmic surgeons, owe a debt of gratitude to Dr. Koller who first introduced cocaine. Dr. Koller, in the early eighties, demonstrated that cocaine instilled in the conjunctival sac proved an efficient anesthetic so that many operations could be performed on the eye without the slightest pain being felt. The disadvantages of cocaine are principally its toxicity and the fact that it can not be sterilized by boiling; and hence various substitutes have been advanced, many of which as far as ophthalmic work is concerned, are quite as efficient as cocaine. I wish particularly to call attention to eucain, alpin and stovain. The field for local anesthesia in ophthalmic work has been growing wider and wider, and today there are few operations on the eye that can not be successfully performed under local anesthesia. Even enucleation of the eye has been successfully performed, in numerous instances, under local anesthesia. One local anesthetic that has not been mentioned is "acoin," which is used as an adjunct to subconjunctival injection.

ACUTE BRONCHITIS DURING THE NURSING PERIOD.*

BY J. J. RICE, M. D., KEARNEY, MO.

This affection is one of the most important diseases with which the physician has to deal. One of the most difficult problems in pediatrics is for the physician to forecast what a day will bring forth during the duration of infantile acute bronchitis. Today, everything is hopeful; tomorrow, the patient may be dead. It is certainly one of the most delusive of diseases. Its irregular temperature curves, its temporary improvements, its hopeful countenance, its wasting body, its cry of distress, its danger signals, make a picture so familiar to the experienced physician that a glance is all he needs to suggest the uncertainty of the future. When called to administer to a little sufferer presenting such a group of symptoms, either present or in anticipation, the question, what must be done, becomes one of great responsibility.

If we are not familiar with the destructive processes that may be going on, our treatment resolves itself into nothing better than a guess, having no rational lines to guide us, or any definite course of management.

To treat a case of acute capillary bronchitis in childhood, the physician's knowledge must have for its foundation, anatomy, physiology, pathology and applied therapeutics. Being thus equipped gives him confidence in himself, which, in turn, inspires confidence in those with whom he comes in contact. More than this, he is enabled to define a course of treatment by which he may meet the various pathological stages that follow each other in the history of the case.

There is nowhere in the practice of medicine that the well-equipped and scientific physician shows the contrast of medical in-

*Read before the Clay County Medical Society, May 27, 1907.

efficiency so great as in dealing with the disease under discussion. The physician, in treating these cases, must be resourceful; quickly detecting the injurious effects, possibly, of squills, or the failure of the digestive tract to digest and assimilate the foods given the patient. Prognosis should always be guarded, because of several dangers, to be referred to later, that seem at present to be uncontrollable.

I will endeavor to give, as briefly as possible, the pathogenesis of infantile bronchitis, which is used interchangeably with capillary bronchitis; either of which may result in broncho pneumonia. It is safe to say that the law of irritation, decay and destruction is as fixed as the law that governs repair, growth and construction. Therefore, of the different battle grounds scattered throughout our material body, where health and disease have struggled for supremacy, there is none where the physician is so impotent to render immediate assistance as in the territory of the smaller bronchial tubes of the infant.

To refresh our memories in regard to the landmarks found in this locality, let us suppose we are looking at a spiral tube, which when straightened measures eight inches; a lumen, 1 10th in. at the large end; the large end joined to a larger tube with a larger canal, and the small end extended into the alveolus or air cell. The lumen of the tube, or so to speak, its lining is a mucous membrane which, histologically, has three layers. This membrane furnishes all the secretion thrown into the tube, and all the material furnished the mucous glands for this output comes from a dense network of capillaries supplied by the pulmonary artery.

This tube loses its cartilagenous support when the size is reduced to one-thirtieth of an inch. When the venous circulation is disturbed, causing an influx of blood to this point greater than normal, the expected will certainly occur; that is, the increased pressure on these vessels will tend to close the smaller end of the tube producing occlusion of the tube to the air cell, or atelectasis.

Each cardiac contraction forces the same amount of blood through the pulmonic capillaries, as is thrown through the systemic capillaries, although the area is much greater; hence, the great danger of atelectasis by blood pressure forcing the capillary bronchi, whose mucous membranes are now in a state of inflammation, making the sides of the lumen easy to stick together. If we had a remedy by which we could prevent the blood pressure referred to above, we would have the problem solved.

Having outlined the pathology and resultant dangers in acute capillary bronchitis in the infant, it can be more readily seen why this citadel is more vulnerable to the attacks of the family of bacteria than other parts of the human organism, and why the great life-giving principle, oxygen, is cut off from coming in contact with the blood, which allows an excess of carbon to steadily increase in the blood, destroying its vital force.

If the position taken is correct, the continuance of the fever, as well as its irregular temperature curves, can be accounted for on the theory that the tendency of the infecting agent is to attack new territory, plus the increase of the toxine of the germs and the poisonous effects of the increase of carbonaceous material in the blood, because oxygen cannot reach it to burn it off.

It goes without saying that, in all our inflammatory diseases, a rise of temperature indicates an increase of inflammation, hence, the varying of the temperature curve. We also know that if the inflammation extends into new territory the primary inflammatory process gets better and the patient may brighten up. I venture the opinion that the rapid fluctuatory changes in their symptomatology, is the result of the sticking together and opening up at different times of the minute capillaries. This, when opened up, increases the amount of oxygen, burns up the carbon and lessens the respiration. When they are stuck together, the opposite condition exists.

It logically follows that the treatment can never be specific, nor the prognosis certain, because of the large probability of atelectasis occurring at any moment without warning. The latter stages of the disease, or during the degenerative changes, pyemia, to a greater or less extent, may occur. The disease never terminates by resolution; it always terminates by fatty degeneration or suppuration.

I deduce from the foregoing the following rules or principles for treatment:

1st. A well-ventilated room; its temperature kept as close to 70° as can be done.

2nd. All articles not absolutely necessary for the convenience and comfort of the patient should be removed.

3rd. Put the patient in a bed sufficiently large so that its position can be changed from side to side, which will allow airing and cooling of the bed; the effect of which would be to lessen the patient's fever.

4th. Place the bed in the middle of the room and from the top of the bed posts (which should be two feet higher than the level of the patient) suspend sheets around the bed, so that a spray of tincture of benzoin can be thrown against its surface as is needed.

5th. The patient should have on no clothing except a long gown of woolen material or soft cotton.

6th. All the water the patient can drink, none externally.

7th. Local applications to the chest.

8th. Nourishment every four hours.

9th. Medicinal remedies to meet indications, preferably, the tinctures largely diluted in water.

10th. Exclude from the room all oxygen consuming lights at night, as well as unnecessary visitors at all times.

True, it is possible for a child to recover from acute capillary

bronchitis and violate the above rules, but a persistent adherence to them will give good results, both in comfort to the child and respect to the physician.

Now gentlemen, let us, like New Testament christians, be able to give a reason for the hope within us. We, now, approach the bedside of a little, afflicted, innocent baby, whose respiration has reached 70, temperature 104, pulse 150 to the minutes, short, quick cough every few moments. Auscultation reveals a case of infantile bronchitis.

In the matter of local applications to the chest, some are good, others positively harmful. Those that dilate the superficial capillaries and cause fluctuary changes in the arterial current to some extent, at least lessens pulmonary engorgement. To this class belong the counter-irritants, but not necessarily an irritant to the skin. A jacket of woolen goods, or cotton, will dilate the blood vessels. However, I prefer Graetzer's formula, which is as follows: Take five parts each of flaxseed meal and camphorated oil, two parts mustard and sufficient quantity of boiling water to make a thick paste; spread on gauze and apply to the chest and back. The child is then wrapped in an oil silk jacket, lined with absorbent cotton, which maintains the heat of the poultice. The mustard and the camphor act as a mild counter-irritant, bringing the blood to the surface. The application should be renewed twice in twenty-four hours.

There are several forms of clay preparations and glycerine now on the market, which are not beneficial, possibly injurious. I would as soon risk a good piece of adhesive plaster.

Having arranged our little patient in bed, prepared his room and attendants so that he will get all the oxygen that space will give him, we surround his bed by sheets referred to and commence the spray of benzoin. By the patient's inhalation, the drug will be brought in contact with the lesion; it being a stimulant and a germicide, much benefit may be hoped for. The patient should be given 1 40 gr. of hyd.-chlomitis with double the amount of bi-carbonate of soda every two hours, because of its restraining power over inflammatory exudations.

If this drug will thin the secretions of the parotid gland in health, it is fair to presume that it would have the same effect in disease. That mercury will effect fibrinous exudates there is no question or doubt. Then the time to give it would be during the period of greatest exudation so as to prevent it from becoming too tenacious, so that the air tubes could keep open, thereby, carrying oxygen into the air cells.

What can be done to lighten the right side of the heart? Here is where we get our death rate; here is the weak link in the chain. I will guarantee the lungs, if I can find some one to take care of the right side of the heart. Why? Because, when the lung capacity is taken,

it has no safety valve to relieve the over-supply of venous blood that is poured into this already crippled organ.

I would like, at this point, to vote the whole medical fraternity, unanimously, in favor of taking out of this circulating fluid enough to give the right side of the heart just what it can handle, and take the chances on the damage done to other vital centers. If we slow the blood current with aconite, the volume is not diminished; if we dilate the capillaries with atropine, we are still facing the problem; if we strengthen the heart's action with strychnia, are we not getting rid of the surplus?

Let us see what we have done if we do bleed. We have taken out a quantity of blood whose mission in constructive work is already performed, and the salvage is now being borne through this conduit to the purifying plant in the lungs, which is not able to meet the demands of the overloaded, effete material now needing an escape opening. One says, throw this material into the bowel; another says, put it through the skin; and still another says, let it go out through the kidneys. These measures have all been tried and failed.

In the event that our little patient has sufficient reserve vitality to reach the afebrile stage, then what? Our position as physicians is by no means released from further responsibility. Bloodletting is no longer an issue. Like the case of confinement, which should have been relieved with forceps, has now relieved itself.

We now have adventitious material to dispose of, and the use of iodine is on rational lines; ergot and iron meet respective conditions that are always present. Whiskey and cod liver oil belong to the nutritional side of the problem; neither one has any place during the inflammatory period of the trouble.

I have made no mention of any remedy that is said to be good for bronchitis, but, in the preparation of this paper, tried to give a physiological reason for its use.

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EDITORIAL.

THE NEW MEDICAL PRACTICE ACT.

The new medical practice act passed by the last legislature, became effective on June 15th. Under the provisions of this act anyone desiring to practice medicine in this state must have a license from the state board of health, and none but graduates of reputable medical colleges of four years requirements at the time of graduation if the applicant graduated since March 12, 1901, and of two years requirements if the applicant graduated before that time, may appear before the board for examination for a license to practice. The act also provides for certain preliminary educational requirements, these being the same as the minimum requirements recommended by the Council on Medical Education of the American Medical Association.

Under graduates will not in future be permitted to take the examination for a license to practice medicine; and anyone who attempts to practice medicine without a license or anyone who represents himself in any manner as authorized to or does treat the sick or others afflicted with bodily or mental infirmities, without a license from the state board of health, subjects himself to punishment by fine and imprisonment. This clause widens the field of usefulness of the county medical society who, acting in harmony with the state board of health, can lodge information with the county prosecuting attorney against violators of the law in the county. The law is specific and clear, and illegal practitioners can be prosecuted promptly and successfully whenever the evidence is convincing.

This law will ultimately place Missouri on a plane where its licentiates will have their licenses recognized by other states whose advanced standard in matters of medical education has long been acknowledged, and it will prevent the recognition by the Missouri board of states whose standards are not equal to ours.

The state board of health has appointed a committee to visit the various medical schools in the state in order to learn what facilities these schools possess for teaching medicine, and to determine which schools shall be classed as reputable and be permitted to send applicants to the board for examination, thus bringing the medical schools of Missouri up to the standard recommended by the American Medical Association. The result of this inspection will be published in a later issue. The following members of the board compose the committee: Dr. F. J. Lutz, Chairman; Dr. J. T. Thatcher, Dr. Ira W. Upshaw, Dr. A. H. Hamel.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The House of Delegates of the American Medical Association met at Atlantic City on June 3. Five sessions of the House were held, two on Monday, one on Tuesday, and two on Thursday. The amount of business transacted was larger than has ever previously come before this body. Dr. W. J. Mayo presided over the House on Monday, and on Tuesday the Chair was filled by Dr. Joseph D. Bryant, President Elect, who had been installed at the general session on Tuesday morning. In his President's Address, Dr. Mayo emphasized the growth and development of the *Journal* of the American Medical Association, the work of Dr. McCormack as Chairman of the Committee on Organization, and the work of the Board of Trustees. He recommended the consideration of medical education, the work of the Council on Pharmacy and Chemistry, the life insurance examination question, which, he said, should be settled amicably if possible and the advisability of appointing a committee to expedite the business of the House.

The report of the General Secretary, showed the present membership of the Association to be 27,515, an increase during the year of 3,879 members.

The report of the Board of Trustees, presented by Dr. T. J. Happel, was a statement of the business of the Association from January 1 to December 31, 1906. The first exhibit was the report of the Investors Audit Company, a bonded and incorporated auditing company of Chicago, which showed the results of the auditing of the books of the Association. The net income for 1906 was \$325,300.35, of which \$103,076.10 were membership dues, \$87,694.97 subscriptions to the *Journal*, and \$98,458.85 receipts from advertising. The total expenses for the year were \$293,385.25, leaving a net revenue of \$31,915.10. The various exhibits in the report showed in detail the disposition of the net revenue, the net investment in the Directory, inventory of stock on hand, bond account, publication expenses, organization account, Association account, medical legislation account, medical education account, depreciation of property, and treasurer's report. (This report appears in full in the *Journal* for June 8). The

detailed report from the subscription department showed the circulation for each week of the year, the weekly average for 1906 being 46,479 copies. Tables showing the number of members and subscribers in each state with the gain and loss for the year, the percentage of physicians in each state who receive the *Journal*, and the circulation figures for the past nine years were also given. A lengthy and detailed report was made on all the business interests of the Association and the work in various departments.

The report of the Council on Medical Education recommended that all medical schools be annually inspected for the next three years. That the minimum preliminary educational standard be sufficient education to enable the student to enter the freshman class of a recognized university or college; this minimum to be increased as soon as possible by adding physics, chemistry, biology and one modern language; four years work of thirty weeks and thirty hours per week to be regarded as the minimum amount of time for a medical course. That recognition be refused night schools or schools conducted solely for profit. It urged the Association to ask the state licensing boards to make an annual inspection of the medical schools in their states and to refuse to license undergraduates. The principle of reciprocity was endorsed, as well as the annual conference held by the Council, which should be composed of delegates from each state licensing board and from each state medical society. The report was unanimously adopted.

Dr. F. Park Lewis, as Chairman of the Committee on Ophthalmia Neonatorum, showed from the census report the necessity of counteracting this evil. The committee recommended that it be continued and that it carry on its work in connection with the Sections on Ophthalmology, Obstetrics and Hygiene and Sanitary Science, as well as with the Conference of State and Provincial Boards of Health. This report was unanimously adopted.

Dr. John G. Clark presented a report of the Committee on the Establishment of a Board of Public Instruction. This committee, appointed at Boston last year, recommended the establishment of a board of public instruction on medical subjects, which should endeavor to educate the public through the press, through distribution of pamphlets, through public lectures and circular letters.

Missouri was well represented at the meeting there being seventy-four of our members present. Dr. Walter B. Dorsett, of St. Louis, was elected chairman of the section on Obstetrics and Diseases of Women, and Dr. Hanau W. Loeb, of St. Louis, was elected chairman of the section on Laryngology and Otology.

The election of officers resulted as follows: President—Dr. Herbert L. Burrell, Boston. First vice president—Dr. Edwin Walker, Evansville, Ind. Second vice president—Dr. Hiram R. Burton, Lewes, Del. Third vice president—Dr. George W. Crile, Cleveland, O. Fourth vice president—Dr. W. Blair Stewart, Atlantic City, N.

J. General secretary—Dr. George H. Simmons, Chicago. Treasurer—Dr. Frank Billings, Chicago. Trustees—Dr. T. J. Happel, Trenton, Tenn., re-elected (1907-1910); Dr. W. W. Grant, Denver, Colo., re-elected (1907-1910); Dr. Philip Marvel, Atlantic City, N. J., re-elected (1907-1910).

ASSOCIATION OF AMERICAN TEACHERS OF THE DISEASES OF CHILDREN.

A meeting of professors of pediatrics and hospital clinicians in that branch was held at the Marlborough-Blenheim, Atlantic City, June 3rd. Many of the best known pediatricians of this country were present. A very successful meeting was held, and a permanent organization was effected which bears the name "The Association of American Teachers of the Diseases of Children." Professors, associate professors and lecturers in medical colleges of the U. S., Canada and Mexico also hospital and dispensary staff members actively engaged in treating children are eligible. The principal objects of the organization are to advance the study of children and their diseases and raise the standard of the teaching of pediatrics in medical colleges and its practice in hospitals, dispensaries and private practice. The association elected the following officers: President, Dr. Samuel W. Kelley, Professor Diseases of Children, Cleveland College of Physicians and Surgeons, Medical Department of Ohio Wesleyan University; Vice-president, Dr. Charles Douglas, Professor Diseases of Children and Clinical Medicine Detroit College of Medicine; secretary, Dr. John C. Cook, Professor Diseases of Children Post Graduate Medical School and Hospital of Chicago; treasurer, Dr. George H. Cattermole, Professor Diseases of Children Colorado School of Medicine. Senators, Dr. W. C. Hollopeter, Professor Diseases of Children Medico-Chirurgical College of Philadelphia; Dr. H. M. McClanahan, Professor Diseases of Children University of Nebraska College of Medicine, Omaha; Dr. R. B. Gilbert, Professor of Diseases of Children Louisville University, Medical Department.

FEES FOR LIFE INSURANCE EXAMINATIONS.

The American Association of Medical Examiners in session at Atlantic City June 3rd, recorded itself as being unanimously in favor of not accepting any reduction in the amount of compensation allowed by life insurance companies for the examination of an applicant, it being considered by all examiners present that the minimum fee of five dollars was low enough and that insurance companies should be willing to pay that amount for a proper examination and report of any applicant, irrespective of the amount of policy applied for. The Association also went on record as being in favor of the establishment of a Bureau of Health by the Federal Government, the secretary to be a physician and to rank in authority and importance with other members of the President's Cabinet.

THE DANGERS OF ELIXIRS.

Simple elixir, so called, has been adopted as a common vehicle in prescriptions intended for children, yet it is probable that but few physicians realize that this elixir contains a considerable proportion of alcohol which under other circumstances they would hesitate to administer. It remains for a pharmacist to call attention to this fact, and to show that the ordinary doses of the preparation may be productive of considerable harm in those of tender years. Mr. E. F. Heffner, in a paper read at the twenty-ninth annual meeting of the Pennsylvania Pharmaceutical Association, cited a number of common prescriptions in which this might occur. Thus sodium bromide is very often administered in the proportion of one grain to the teaspoonful of simple elixir, every hour or half hour, which means that the child, often less than a year old, is getting about a quarter of a teaspoonful of alcohol at every dose, or the equivalent of two teaspoonfuls of wine or over half a teaspoonful of whisky or brandy. In older children correspondingly larger doses are given, which are not only harmful in themselves, but also counteract the sedative effects of the bromide. Another common prescription contains chloral and bromides in simple elixir, which makes a bright, clear, and palatable solution. But the fact is overlooked that there is a chemical incompatibility of chloral and alkaline bromides in alcoholic solution, for on standing the chloral alcoholate will come to the top in a clear layer of about the same color as the rest of the mixture. Unless shaken, the patient is likely to get all the chloral in one dose. These examples need no comment, for the dangerous effect of alcohol in children is of common knowledge, but as Heffner truly states, it is well that the prescribing mind be occasionally refreshed in cases of this kind. In order to avoid any possible danger he advises the use of an aromatic water and simple syrup as a vehicle in prescriptions of this nature.—(*Medical Record*.)

OBITUARY

JOHN W. TRADER, M. D.

Dr. John W. Trader was born in Xenia, Ohio, March 6, 1837. His father, Rev. Moses Trader, moved to Missouri in 1840, and settled near Brunswick, Chariton county, and in 1844 moved to Linn county, Mo.

In 1854 Dr. Trader began the study of medicine with Dr. Alex S. Hughes, of Lindley, Grundy county. He afterward attended the Missouri Medical college, graduating from that institution in 1859, after which he practiced medicine until the breaking out of the civil war.

In the early part of the war he commanded a company in the state militia, but in 1862 he joined the federal forces at Laclede, Mo., and was commissioned assistant surgeon.

In 1864, by special order, he was made brigade surgeon of the First brigade of Gen. Pleasanton's cavalry corps.

In April, 1865, he was mustered out of the volunteer service, and immediately took service in the United States medical corps as surgeon, and was assigned to duty at Jefferson barracks. From there he was ordered to New Orleans as medical director on the steamer Baltic. He resigned his commission in May, 1865, having served almost throughout the entire war.



JOHN W. TRADER, M. D.

After the war Dr. Trader located in Lexington, Mo., and engaged in the practice of medicine until late in that year, when he moved to Sedalia, where he had since made his home and practiced his profession.

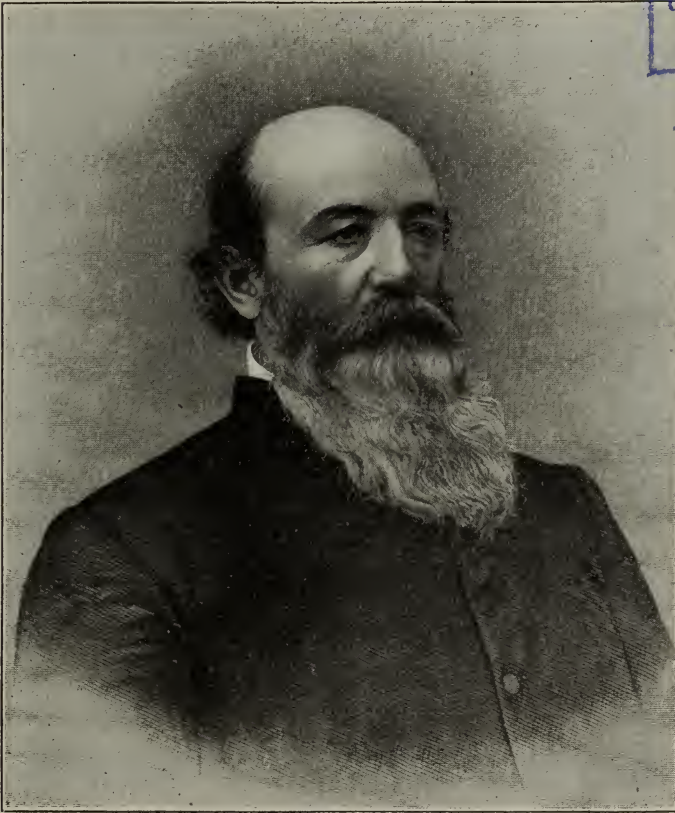
In 1876 he was elected president of the Missouri State Medical Association and in 1877 he was appointed a delegate to the American Medical association, which met in Chicago, and attended the same.

During the same year he was appointed surgeon for the M. K. & T., railway, which position he retained for three years.

In 1878 he was appointed by the curators of the state university on the examining board of the medical department of the state university, and held the office several years.

I. M. RIDGE, M. D.

Dr. I. M. Ridge was born in Adair County, Kentucky, on the 9th of July, 1825, where his earlier boyhood days were spent. In 1834 he came with his father to Missouri and worked both upon the farm and at the blacksmith forge for six months out of the year; the



I. M. RIDGE, M. D.

remaining half year he spent in private schools, thus acquiring a general education, and at the same time learned to be a farmer and a mechanic. Even in after years when he had begun practice it was generally known of him that he could shoe a horse as well as set a limb. At the age of twenty-three he graduated with honors from the medical department of the Transylvania University at Lexington, Ky. Soon

after his graduation he located at Kansas City, then a mere hamlet and camping ground for Indians. This was the time when thousands of prairie schooners wended their way toward the setting sun in search of gold, and when men fell like soldiers before the foe, victims of the dreaded Asiatic cholera. In caring for these unfortunates it was only to be expected that the doctor himself would be claimed as one of its many victims, but while he lay for several days at the point of death his good work was not yet done and his life was spared. During the Civil War he remained at his post and during the many skirmishes which occurred both in Kansas and Missouri he was called upon to serve all alike.

Dr. Ridge served as Councilman in Kansas City, and for ten years was City Physician. He retired from active practice in 1875, and for several years did office practice only. Later he discontinued office practice and devoted his entire time to his vast estates. He was always one of the first to head any philanthropic movement for the benefit of the city in which he lived, and though he had not practiced for many years he took many medical journals and up to his last severe illness read them and could discuss them fluently with his many friends in the profession. He remained a member of the Jackson County Medical Society up to the time of his death. For several years his health had not been the best and for the last year he had been confined to his bed. He seemed to realize that death was not far away and many times during his last sickness Dr. Ridge said to his wife "If in my last sickness any complications should arise that would baffle the surgeons and physicians I wish that you would insist on a thorough post mortem for the enlightenment of my profession and the benefit of humanity, as many of my friends are suffering as I have suffered." He died at his home May 7th, at the age of 82 years.

FRANCIS WITHERS ALLEN, M. D.

Dr. F. W. Allen was born April 1st, 1832, in Howard County, Mo., and died March 23rd, 1906, at his home at Lone Elm, near Barryville, Mo., at the age of 74 years. His boyhood was spent on the farm where he received his primary education. In 1851 he matriculated in the Missouri State University and later in Bethany College (Virginia), graduating from the last named institution with much credit. He immediately began teaching and afterwards established a high school in Macon, numbering among his pupils several who afterwards distinguished themselves in various vocations.

He studied medicine at the Missouri Medical College at which institution he received his medical degree. After his graduation he began the practice of medicine near Barryville continuing in this field until himself stricken with pneumonia. His first patient was his last patient, the professional calls being more than forty-two years apart.

As a man he stood for everything that was good, and made use of all his talents in a way that falls to the lot of but few physicians in the present day. As a physician, he was untiring in his efforts to serve his people. His heart was in his work and to rich and poor alike he ministered. He was a firm believer in medical organizations and a faithful attendant upon the meetings of the county society, often coming fourteen miles through the cold to attend. He was also a member and frequently attended the State Association meetings. He was an earnest believer in the doctrines of the Christian Church and an earnest worker in the same. At his funeral four generations, for whom he had labored faithfully and unselfishly, mingled their tears at his bier.

PETER J. WEBER, M. D.

Dr. Peter J. Weber died of blood poisoning at the St. Louis City Hospital, May 29, after a brief illness. Dr. Weber graduated from the medical department of the Washington University in 1906. He was second on the list in the competitive examination for a position in the City Hospital, where seventy-five were applicants. He was looked upon as one of the brightest and most promising young physicians in St. Louis.

WM. H. ROBB, M. D.

Dr. Wm. H. Robb died at his home in St. Louis on March 5th, 1907. He was born Nov. 20th, 1840, on a farm near Pittsburg, Pa. As a boy he worked on the farm and went to school. He enlisted in the Union Army 1861 and served three years. After the war he studied medicine and in 1871 he moved to St. Louis where he practiced medicine until his death.

A. C. BERNAYS, M. D.

Dr. A. C. Bernays, of St. Louis, died on May 22, 1907, aged 52 years. He was a graduate of the University of Heidelberg. After studying under a number of the surgical masters of Europe he came to St. Louis and practiced in that city until his death.

CORRESPONDENCE.

St. Louis, Mo., June 11, 1907.

Editor, Journal of the Missouri State Medical Association:

In the excellent Oration on Medicine which was delivered by Wm. F. Kuhn, M. D., and published in the June issue of your journal, I notice the following statement: "Who, but Leeuwenhoek, a glass grinder, first demonstrated to vision the continuity of artery with vein by means of capillaries," etc.

I assume that by these words Dr. Kuhn intends to give the credit of the discovery of the capillaries to Leeuwenhoek. If so, he is in error. All historians of medicine are agreed that the Italian, Malpighi, was the first person to observe the passage of blood from the minute arteries into the capillaries and thence into the veins. This was in the year 1661, four years after the death of Harvey. Furthermore, as late as 1686, Leeuwenhoek denied the connection of the smallest arteries with the beginning veins, a mistake which he corrected in 1690. (See Sprengel: *Versuch einer pragmatischen Geschichte der Arzneikunde*, Theil iv. pp., 77, 78, Halle, 1801.)

Very truly,

JAMES MOORES BALL.

Editor Journal Missouri State Medical Association:

At the last regular meeting of the Moberly Medical Society I was appointed one of a committee of three to draft an article for publication in your journal regarding the action the society had taken concerning fees for medical inspection for the Metropolitan and Prudential Insurance Companies. The article we wish to have published is given below.

Respectfully,

O. O. ASH, M. D., Secretary.

The Moberly Medical Society composed of all the practicing physicians in the city, at its early May meeting, adopted resolutions which it is to be hoped will find an echo that will resound throughout the state, to the benefit of medical societies and the profession where societies do not exist. The resolutions adopted provide that in the future no less than fifty cents may be charged for an inspection of candidates seeking insurance in the Prudential or Metropolitan Insurance Companies; the signing of the agreement was unanimous. Heretofore the maximum rate has been twenty-five cents for an inspection and the Moberly Society have demanded and will receive the increase on the grounds that this rate is entirely too low, and ridiculously out of proportion to the rates charged for professional services rendered private parties. The Moberly Medical Society hope to see their brothers in other sections profit by adopting similar resolutions.

A CORRECTION.

In the paper by Dr. Norvelle Wallace Sharpe, published in May, a transposition of references from the bottom of the page into the body of the article, caused considerable confusion in the conclusions as printed. The Conclusions should have read as follows:

VIII. *Conclusions.*—

I. The blood-supply of the ureter is ample, of which probably the peri-ureteral arterial plexus is the most essential factor.

II. Operative procedures which conserve the blood-supply, in particular the peri-ureteral arterial plexus, are ordinarily satisfactory.

III. When the integrity of the ureter is impaired, restitutorial rather than destructive surgical measures should be followed.

IV. Of which restitutorial measures the various methods of uretero-ureteral anastomosis are recommended.

V. Intraperitoneal trans-uretero-ureteral anastomosis is an anatomic possibility; it is also a physiologic success.

VI. Retroperitoneal trans-uretero-ureteral anastomosis, whether anterior or posterior to the aorta and vena cava, is an anatomic possibility. (Further experimentation is essential in order to prove that it is a physiologic success). The route followed is the shortest path between the two ureters. The technical difficulties are not excessive. It is highly probable that this method impairs the ureteric blood-supply less than any other method in vogue.

*Of very great interest, in connection with the problems incidental to wounded ureters or such other conditions that may tempt the operator to find a solution in a nephrectomy, is the work of Carrel, Floresco, Guthrie and others in organ-transplantation. They have most ingeniously devised and successfully executed plans by which the kidney, heart and other organs, removed from their normal site and transplanted elsewhere, have continued functionation. The three natural subdivisions of auto-transplantation, homo-transplantation and hetero-transplantation—have received consideration and experimental work is of record. This suggestive research is pregnant with possibilities for future development. For details see:

Carrel. La technique opératoire des anastomoses vasculaires et la transplantation des viscères. Lyon Medical, 1902.

Carrel. Les anastomoses vasculaires; leur technique opératoire et leurs indications. Ze congrès des Médecins de langue Française de l'Amérique du Nord. Montreal, 1904.

Floresco. Conditions de la transplantation du rein. Recherches sur la transplantation du rein. Jour. de Physiol. et de Pathol. générale, 1905.

Carrel and Guthrie. Functions of a Transplanted Kidney. Science, October 13, 1905.

Carrel. Transplantation of Organs. Jour. Am. Med. Assn., 1905, vol. xlv. p. 1645.

Carrel et Morel. Anastomose bout à bout de la jugulaire et de la carotide interne. Lyon Medical, 1902, v. 99, p. 114.

Carrel et Morel. Présentation d'un chien, porteur d'une anastomose artérielle veineuse. Lyon Medical, 1902, v. 99, p. 153.

Carrel. Anastomosis and Transplantation of Blood-vessels. American Medicine, 1905, August.

Carrel and Guthrie. The Reversal of the Circulation in a Limb. Annals of Surgery, 1906, v. xliii, p. 203.

RESULTS OF THE EXAMINATION OF APPLICANTS TO PRACTICE MEDICINE.

At the last meeting of the State Board of Health, held in St. Louis and Kansas City simultaneously, two hundred and twenty-eight applicants for licenses to practice medicine in Missouri were examined. Of this number one hundred and fifty-four made a passing grade while seventy-four failed of passage, or 32 per cent. of failures.

This is the last examination under the old law. It is required hereafter that the applicants have a preliminary education, to-wit: A diploma from a High School, State Normal School, State University, Academy or a certificate from a County School Commissioner, showing that the applicant's qualifications are equal to that of a graduate from an accredited High School. The applicant must also be a graduate of a four year reputable medical college before taking the examination.

The next examination will be held in Mexico, Missouri, on July 9-10-11th. Under the new law the failures before the Board will be very few and the disappointments that have heretofore been so common will almost entirely cease.

The following tables show the colleges from which the applicants graduated, the number of applicants from each college and the year of graduation.

PASSED.

Washington University, St. Louis	28-'07; 1-'00
St. Louis University, St. Louis.....	2-'06; 3-'08; 21-'07
University of Missouri	2-'07
Barnes University, St. Louis.....	1-'06; 18-'07; 3-'08
P. & S. of St. Louis.....	1-'06; 4-'07; 3-'08
Louisville University	1-'07
Hosp. Col. of Med., Louisville.....	1-'07
Eclectic Med. Institute of Cincinnati, O.....	1-'96
Homeopathic Med. Col., St. Louis.....	4-'07
Drake Uni. Med. Dept.....	1-'98; 1-'06
Westminster Med. Col., London, Eng.....	1-'00
P. & S. of Chicago, Ills.....	1-'07; 1-'06
Electric Med. Uni., Kansas City.....	1-'07
American Med. Col., St. Louis.....	2-'07
University of Naples	1-'82
University of Tennessee	1-'07
Rush Medical College	1-'07; 1-'03; 2-'00
Uni. Med. Col. of Kansas City.....	26-'07; 9-'08
Kansas City Hahnemann	1-'07
Meharry Medical College	1-'05
Ens. Cent. Med. Col., St. Joseph.....	5-'07
University of Kansas	3-'07
National Medical University	1-'05

FAILED.

Washington University, St. Louis.....	1—'06; 1—'07; 2—'08
St. Louis University, St. Louis.....	4—'06; 3—'07
Barnes University, St. Louis.....	1—'99; 2—'05; 1—'06; 2—'07; 2—'08
St. Louis Col. P. & S.....	1—'02; 2—'06; 8—'07; 2—'08
Kentucky School of Medicine.....	1—'07
Memphis Medical College	1—'04; 1—'06
Med. University of Athens.....	1—'97
Homeopathic Med. Col., St. Louis.....	1—'07
Eclectic Med. Uni., Kansas City.....	1—'07
American of Chicago.....	1—'05
Louisville Medical College	1—'99
Bennett of Chicago.....	1—'06
National of Chicago	1—'06
American Med. Col. of St. Louis.....	1—'06; 3—'07
Uni. of Camerino, Italy.....	1—'92
Uni. Med. Col. of Kansas City.....	1—'01; 9—'07; 3—'08; 1—'09
Meharry Medical College	1—'06
Ens. Cent. Med. Col., St. Joseph.....	1—'05; 1—'06
Keokuk Col. of P. & S.....	1—'08
University of Kansas	1—'08
University of Naples	1—'50
Un ⁱ College of Medicine of Va.....	1—'95

COUNTY SOCIETY NOTES

ADAIR COUNTY MEDICAL SOCIETY.

The meeting was called to order at the office of the secretary at 8 p. m., June 6th.

A clinical case of leucoderma was presented by Dr. Gashwiler.

The secretary reported that he had stated to the prosecuting attorney the facts surrounding the death of Mrs. Brown, who was cared for in confinement by a midwife. The case was referred to the Grand Jury.

Dr. Noe read an instructive paper on extra-uterine pregnancy which was discussed by all members present.

Dr. E. A. Grim presented a paper on "Conjunctivitis" and considered all of the forms that are commonly met with in general practice. Dr. Hanks opened the discussion.

Eight members were present.

Society adjourned to meet on the first Thursday in July—E. C. GRIMM, M. D., Reporter.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

A meeting was held at Cape Girardeau, June 7th, eight members being present.

Dr. H. L. Cunningham read a paper on "Anterior and Posterior Displacements of the Uterus." Dr. J. D. Porterfield, Jr., read a paper on the "Surgical Treatment of Prolapsus." Dr. Walker presented a paper entitled "Simple Endometritis," and Dr. Wilson contributed an essay on "Gonorrhoeal Endometritis and Technique of Curettage."

Dr. G. W. Vinyard, delegate to the State Medical Association, made his report.

On motion the Society adjourned to meet in Jackson, Mo., July 5th.—E. H. G. WILSON, M. D., Secretary.

CARTER-SHANNON COUNTY MEDICAL SOCIETY.

The regular meeting of the Carter-Shannon County Medical Society, was called to order by Dr. T. W. Cotton, vice-president, the president Dr. Frank Hyde having moved out of the district.

The following physicians were elected to membership: Dr. Alexander Johnson, Dr. George D. Andrews, Dr. H. M. Griffith, Dr. R. G. Roth, all of Grandin, Mo.

An interesting paper on puerperal septicemia was read by Dr. P.

D. Gum, of Birchtree, and discussed with much interest. Another paper by Dr. Wm. Fulton of Winona, was read and discussed by all the members present.

The election of officers resulted as follows: Dr. Wm. Fulton, president; Dr. P. D. Gum, vice-president; Dr. J. A. Chilton, secretary and treasurer.

The meeting was a very interesting and successful one. The next meeting will be held at Fremont.—J. A. CHILTON, M. D., Reporter.

CASS COUNTY MEDICAL SOCIETY.

The Cass County Medical Society met in regular session at Pleasant Hill, Thursday, May 2nd. While the attendance was not as large as had been expected, still the session was a very interesting and beneficial one. Only two papers were read, "Nervousness and its Relation to Insanity," by Dr. John Punton, and "Diseases of Women having their Origin in the Lying-in Chamber," by Dr. Harrelson, but these two subjects were treated so completely by their authors as to furnish abundant food for thought for the whole meeting.—W. F. CHAFFIN, M. D., Secretary.

CEDAR COUNTY MEDICAL SOCIETY.

Cedar County Medical Society convened by special invitation of Dr. Dunaway at his home town, Caplinger Mill, on June 12th. After a splendid dinner prepared for the members of the Society and their wives, the Society was called to order.

The President called for reports of Committees. Dr. Crawford chairman of committee on the Dr. Crabtree trial before the State Board of Health on the charge of being an abortionist, reported the case was decided against Dr. Crabtree and his certificate was revoked.

Several cases were brought before the Society and a most interesting and instructive discussion followed each case. These cases were taken from our every day practice and, therefore, intensely interesting; in fact, so much so that we never got beyond this order of business and we were obliged for lack of time to postpone the papers prepared for this meeting. However, all the members expressed themselves as having enjoyed and profited so much from the general discussion of cases which all were liable to meet at any time that they were perfectly satisfied to continue the papers for our next meeting, to be held at El Dorado Springs on July 19th.—C. A. EDGAR, M. D., Reporter.

COOPER COUNTY MEDICAL SOCIETY.

Cooper County Medical Society met in Boonville on Tuesday, June 4th.

Dr. Taylor of Speed, reported a case of aphasia and internal strab-

bismus of left eye in a patient who had suffered from an explosion of dynamite. Patient was thrown several feet by the force of the explosion and was severely bruised over the chest and on the left frontal region. The aphasia persisted for several weeks and also the strabismus but both are improving under the use of iodide of potassium.

Dr. Smiley reported a case of fibroid of several years duration; the tumor filled the entire vaginal vault and extended up into the uterus. On account of the size of the growth attempts to remove the tumor had been difficult; a constant discharge was present rendering abdominal operation unfeasible and vaginal removal by means of the ecraseur was being tried with enough success to warrant further attempts. At present a large mass has been removed and the condition of the patient is much improved.

Discussion of these proved interesting. Following this discussion the resolution upon "Contract Practice" was brought before the Society.

Dr. Smith moved that the Secretary write the Secretary of the American Medical Association in regard to contract practice of all kinds; fraternal, practice in State institutions, railway practice, practice in private schools or institutions, etc.

Upon a vote of five to one the Society then adopted the following resolution:

Whereas, it having come to our knowledge that it has become a custom among many of the fraternal organizations and societies to contract with a physician or physicians, usually members of their orders or societies, to obligate themselves as physicians to attend the sick members thereof, under contract, at a price regulated and determined by the society or order, such price or remuneration being much less than that charged for similar services in the same community, thereby debasing and degrading our noble profession, therefore, be it,

Resolved: That the Cooper County Medical Society condemn such contract practice and that its members agree and declare that they will not enter into such a contract with any lodge, society or association whatever, except to act as examiner for candidates for membership therefor.

Following the adoption of the above resolution the Society adjourned to meet July 2nd, 1907.—JOHN R. LIONBERGER, M. D., Secretary.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF MAY 10TH.

Annual Business meeting, Dr. W. A. Coy and Dr. R. L. Pipkin of Springfield were elected to membership in the Society. Dr. Farnsworth, Chairman of the committee on Revision of Fee-Bill reported that this committee had used our twenty-three year old Fee-Bill as a

foundation and found that very few changes were necessary. This report was discussed by Drs. Camp, Boyd, Fulton, Smith, Ralston, Terry, Tefft, Evans, Barnes, Cox, Coffelt and others and with one amendment the Fee-Bill as reported by the committee was adopted. The principal charges are \$2.00 for day visit, \$3.00 to \$5.00 for night visit, \$1.00 for ordinary prescription, \$2.00 to \$5.00 for a Life Insurance Examination, \$10.00 to \$25.00 for Natural Labor.

The Society discussed the eligibility to membership of graduates from eclectic medical colleges and it was the general opinion that where one did not practice sectarian medicine, had a license from the State Board of Health, and there was no other objection, he would be eligible to membership in this Society.

MEETING OF MAY 24TH.

Drs. T. Doolin and Onas Smith of Ash Grove, Dr. C. J. Pike of Willard, Drs. C. A. Tucker and J. E. Dewey of Springfield were all elected to membership in the Society. After quite a discussion it was decided to publish the ordinary charges of the Fee-Bill in the Newspapers so the people would understand the charges.

Dr. J. W. Williams read a very interesting paper entitled "Intemperance in Eating," and said in part:

Intemperance in eating has existed since the beginning, although it has not been emphasized as much as intemperance in drinking.

Intemperance in eating and drinking is caused from lack of will power or self control. When whisky, tobacco or coffee, are used intemperately it is because the user derives pleasure from their effect, and again the sense of taste and smell are most pleasant things to satisfy, but when we indulge them so as to become sick we are intemperate and deserve to be placed in the same category as the individual who is intemperate from the use of intoxicants.

I have thought and believed for a number of years that the number the people who are intemperate in eating far exceeds those who are intemperate in drinking.

A comparison of the two kinds of intemperance is strongly similar a man comfortably full of liquor will say that he has not had a drop; this looks as though his moral character was wanting, but take one of your lady patients, a refined, intelligent woman, suffering from habitual headache, constipation and attacks of acute indigestion, sick at the stomach and anxious for relief; she tells you she has not eaten a thing that could hurt her but, being somewhat, doubtful you administer an emetic which promptly brings up a lot of indigestible things.

MEETING OF JUNE 14TH.

Dr. Fulton our Delegate to the State Meeting at Jefferson City made an interesting report as also did Dr. Coffelt, Councillor from this District. The State Association has about 2,500 members and

\$5,500 in the Treasury. The next meeting is to be held in Springfield and all Greene County members are urged to do everything in their power to make this meeting a success.

Dr. E. G. Beers who was a member of the Medical Department of the Navy from 1901 to 1905, read a very interesting and instructive paper entitled, "The Medical Department of the U. S. N. and Some of the Tropical Diseases With Which it Comes in Contact." The doctor said in part:

This Department, or Bureau of Medicine and Surgery, is under the charge of the Surgeon General of the Navy who holds the rank of Rear Admiral while filling this position. The members of the Medical Department are changed from ship to hospital and so have varied experiences.

Each must be able to manage a hospital or meet any emergency in the line of disease or accident. During the last few years much knowledge has been obtained by contact with many diseases.

In the Philippines alone are many diseases. Dengue is one of the most general although Asiatic cholera is probably the most dreaded but the bubonic plague comes a close second. The cholera was most common among the natives and on shore. From the first case reported, March 20, 1902, to the last case reported, March 8, 1904, there were 166,252 cases with 109,461 deaths reported to the Bureau of Health for the Philippines.

Leprosy is another prevalent disease. Smallpox is mild there. Beri-beri is treated by change of climate; the symptoms are edema, dyspnea, rapid pulse and paralysis.

JACKSON COUNTY MEDICAL SOCIETY.

MEETING OF APRIL 2, 1907.

The regular weekly meeting of the Jackson County Medical Society was held on Tuesday evening, April 2nd; there were present ninety in all.

The scientific program which consisted of a Symposium on Syphilis. Those taking part in the symposium were: First.—Etiology and Initial Lesions, by Frank Hall, who, aside from the histopathology of the lesion, demonstrated the spirochete pallida under the microscope.

Second.—Syphilis of the New Born, by Dr. Robert T. Sloan, mentioning cutaneous manifestations which he gave as many and varied; the absence of eye brows and eye lashes; enlarged liver, which he said was almost pathognomonic—snuffles and bone involvement.

Third.—Syphilis of the Nervous System, by Dr. John Punton. He spoke of softening as a result of changes in blood vessels and nerves directly.

Fourth.—Prognosis and Treatment, by Dr. Jacob Block, who re-

marked that if let alone many cases would recover. When treated the prognosis is good, at least much better than tuberculosis, rheumatism and other diseases that are not so much dreaded. He condemned excision of chancre as being useless. The administration of potass. iodide and mercury in different forms was the main treatment. In deep infiltrating serpiginous forms of the skin, cod-liver oil and tonics are imperative; here you must withdraw regular syphilitic remedies.

Those taking part in the discussion were Dr. Wm. Frick, E. G. Mark, Hugh Miller, B. E. Freyer, Abe Miller, W. M. Reed, C. J. Morrow, W. L. McBride, S. P. Child, C. M. Fulton, and Maggie McCrea. Each essayist then made a few closing remarks.

MEETING OF APRIL 8TH.

A special meeting was called April 8th, there being present in all forty, among whom were Dr. C. M. Nicholson, Secretary Missouri State Medical Association, Attorney Barth, also of St. Louis, and Geo. Creel, Editor of the "Independent" of Kansas City. Each of the above gave an address in the order named relative to new state laws and what we could expect to accomplish by said laws in driving out quackery and abortionists. Others speaking were Doctors Langsdale, J. D. Griffith, Jabez Jackson, H. E. Pearse, and C. L. Hall. A motion was made by Dr. Jackson that a rising vote of thanks be taken in behalf of the society for the earnest efforts put forth in the interest of our society, which motion unanimously carried.

MEETING OF APRIL 9TH.

The regular meeting of the Society was called to order April 9th by the president, O. H. Dove, there being thirty-six in attendance.

Dr. C. B. Hardin reported an interesting case of secondary anemia due to gall stones in gall bladder and common duct which a postmortem examination showed to be also cancerous. Doctors B. C. Hyde, W. A. Shelton, J. M. Goodson, B. E. Freyer and R. E. Castelaw discussed the subject, and Dr. Hardin closed discussion.

The Chair then called upon Dr. H. O. Leonard for a report of a case of eclampsia. The doctor reported a case which had fallen into his practice the previous evening. In view of the fact that he had prepared a paper to read before the society, the doctor refrained from entering into a general discussion of the subject, but limited his remarks to the individual case. Those discussing the case were Doctors C. B. Hardin, F. S. Van Eman, W. L. Campbell, F. E. Murphy and Benjamin Jacobs.

MEETING OF APRIL 16TH.

Regular meeting was held on Tuesday Evening, there being present fifty-three.

First on the program was a paper entitled "Transverse Foetal Presentation," by Dr. F. T. Van Eman. It consisted of a careful

review of the literature on the subject, together with report of a case that had recently been his misfortune to meet in his practice. Those discussing the paper were Doctors Zwart, Leonard and Jacobs.

Dr. Zwart next reported a case by request. A young man who had died that day with a peculiar cuticular pustulation, accompanied by dilatation of heart and though no post mortem could be held he considered it a case of septic endocarditis. Those discussing the case were Drs. Murphy, Porter, Morrow, Leonard and Brewster.

Dr. Murphy reported two cases, one a floating kidney; the other a case of gonorrhœal rheumatism. Those discussing the cases were Drs. Zwart, Child, Thraillkill, Castelaw, Stephens and Brewster.

MEETING OF APRIL 23RD.

Regular weekly meeting was held on Tuesday evening. There were present forty-five in all. The first on the scientific program was a paper by Dr. F. W. Froehling entitled "Kidney Affections as a Result of Chronic Gastro-Intestinal Disturbances." The essayist first reviewed the literature upon the subject which he reported as being very scarce, such affections as nephritis, met with in acute fevers and acute gastro-intestinal trouble, as well as all advanced cases of gastro-intestinal carcinomas, not coming under the class that he wished to discuss. He pointed to those cases especially where indigestion and chronic constipation had existed and farther where albumen and casts, both hyaline and granular, had been found, which cases after treatment, largely dietary, had cleared up and, as patient otherwise maintained his perfect health, failed in years to again appear. In conclusion he stated it was his belief that not every case of albuminuria, associated with casts, was a case of the incurable nephritis that for years had been a horror to the practitioner, but that many of these cases are due to gastro-intestinal derangements, which, if treated before going too far, were curable. Those discussing the paper were Doctors Frank Hall, C. B. Harding, J. Q. Chambers, Ernest Robinson, B. C. Hyde, H. H. Look, F. H. Brunig and Wm. Frick. Dr. Froehling closed the discussion.

Dr. J. Z. Chambers next reported a case of pyemia associated with jaundice and multiple liver abscesses in a man 21 years old. Discussion by Drs. J. F. Binnie, Ernest Robinson and E. L. Stewart.

MEETING OF MAY 7TH.

Regular meeting was held in Atheneum Club rooms Tuesday evening, May 7th. There were present in all forty-five.

Dr. Albert Florian presented a case of organized pleural exudate in a man, age 55. Eight years ago he suffered from an acute attack of lobar pneumonia and was in bed six weeks; since that time has never been strong and coughs constantly; the left side was contracted and there was much dullness on percussion; expectoration that of chronic bronchitis.

Drs. Hyde and Murphy had examined case and reported on same. Drs. Connover, Froehling and Hertzler also spoke.

Dr. E. M. Hetherington reported a case of habitual masturbation in a little girl thirty months old, doubtless due to redundant labia and retained secretion about the clitoris, causing it to become highly inflamed. The child was mentally dull and at this age could neither walk nor talk. A circumcision was performed and in six weeks the child was completely cured of the habit.

Discussion by Dr. Scott P. Child.

Dr. R. E. Castelaw read a paper entitled "A Report and Discussion of Two Cases of Permanent Insanity Following Head Injury." Both cases had apparently recovered from blow and then suddenly developed acute mania. Both were alcoholics. The doctor remarked that both alcohol and syphilis act as predisposing causes in these cases, and further that without these diseases severe blows might be sustained but insanity would not develop. He also spoke of that class of temporary insane who, having recovered from head injury, remain rational until they become intoxicated when they also develop mania which lasts till they again become sober.

Drs. Hanawalt, Hill and Burnett in discussing this paper agreed with what the essayist had said and mentioned cases verifying the statements.

New members: Geo. P. Pipkin, Dale Lucas, Harrold P. Kuhn, Fred N. Pugsley, J. Thomas Pittman, F. W. Overall, Stephen H. Ragan.

MEETING OF MAY 21ST.

On account of fire having destroyed our regular meeting place the meeting was held at the Coats House; attendance forty-seven.

Dr. H. C. Anderson presented a most excellent paper on "Anesthetics" which was a resume of years' of experience and careful study on the subject. He scarcely mentioned any anesthetics other than ether and advised the use of the Bennett inhaler in all cases save children under 9 years of age. Here he said the drop method had been more satisfactory to him. So complete was his paper that nothing short of repetition would here do it justice. The doctor first administers gases until they are narcotized then uses ether.

Dr. O. J. Cunningham, who opened the discussion, stated that he favored the drop method on account of free oxygenation and condemned the Bennett inhaler where the patient breathes and re-breathes the same air; he favored gas administration on account of there being less excitement, hence, he said, less nausea. Others discussing the paper were Drs. Ernest Robinson, Wever, Kyger, Lichtenberg, G. W. Davis, McCrea, Ritter, Froehling, Hyde, Wm. Frick, McArthur, Skinner, J. N. Scott and Castelaw. Dr. Anderson closed the discussion.

Dr. Franklin E. Murphy made a report of State meeting, stating

among many other things that Jackson County had been made a councillor district. His report by motion was placed on file.—E. L. STEWART, M. D., Secretary.

LINN COUNTY MEDICAL SOCIETY.

The Linn County Medical Society held its regular meeting at Marceline June 25th.

A resolution was passed changing the meetings from quarterly to monthly. Regular meeting places were arranged for as follows: Brookfield in February; Bucklin in April; Marceline in June; Linneus in August; Meadville in October; Laclede in December. The time of the meeting will be on Tuesday evening nearest the full of the moon. The December meeting will be the annual meeting at which time officers will be elected for the next year.

Dr. C. D. Stratton, of Rothville, read a paper on the subject of "Pancreatic Inflammation; Its Recognition and Treatment." The paper brought forth an interesting discussion.

The next meeting will be held in Linneus, August 20th. The following program has been prepared for this meeting: "Pertussis," by Dr. W. H. Musgrove; "Water as a Therapeutic Agent," by Dr. Kathryn V. Stanley; "Suppurative Inflammation of the Mammariae," by Dr. D. F. Howard.—F. W. BURKE, M. D. Secretary.

PETTIS COUNTY MEDICAL SOCIETY.

The following resolutions were adopted by Pettis County Medical Society:

Whereas, an all wise God has removed from our midst one of our members, Dr. John Wesley Trader, and,

Whereas, we knew him to be an upright, Christian gentleman, and splendid physician, and,

Whereas, this Society has lost a faithful and ethical member, therefore,

Be it resolved that his family has lost a kind father, and his wife, a devoted husband.

Resolved, further that these resolutions be spread on the minutes of our Society, and that a copy be sent to his family.

We can say of him "Life's race has been well run, life's duty well done, he has entered into rest."

W. G. COWAN,

E. F. YANCEY,

W. J. FERGUSON,

The Committee.

RANDOLPH COUNTY MEDICAL SOCIETY.

A meeting of the Randolph County Medical Society was held at Moberly, Tuesday, June 11th.

Dr. C. B. Clapp was elected Vice-President of the Society.

Interesting talks were had on various cases brought to the attention of the Society, and Dr. Ragan of Macon, Councillor of this District, gave us a good address on "The Needs of Co-operation."

It was unanimously voted that meetings be held twice a month instead of once a month as was the previous custom; said meetings to be held the second and fourth Tuesdays of each month.—G. O. CUPPAIDGE, M. D., Reporter.

STE. GENEVIEVE COUNTY MEDICAL SOCIETY.

Ste. Genevieve County Medical Society held its regular meeting June 12th.

The application of Dr. Edward Ford of River Aux Vases was voted on and he was unanimously elected a member.

A paper by Dr. Rutledge on "Digestion and Assimilation" was received with interest and attention.

Dr. Rutledge offered the following resolution: "That our fees for life insurance examinations for benevolent societies be not less than \$2.00 for each examination." On motion the resolution was adopted unanimously. This resolution is to take effect immediately from and after the next regular meeting of the several fraternal societies, but not to apply to members who have been solicited and whose applications were secured before this meeting.

Dr. Hertich is on program for clinical report of a case for the next meeting and Dr. Moore for a paper.

No further business appearing the Society adjourned until the second Wednesday in July, 8:30 a. m.—R. W. LANNING, M. D., Secretary.

SOUTHEAST MISSOURI MEDICAL ASSOCIATION.

The Southeast Missouri Medical Association held its 31st annual meeting at Fredericktown, on May 7, 8 and 9. The attendance was about fifty. Kennett, Missouri, was selected as the place for the semi-annual meeting, October 15, 16 and 17, 1907. The following officers were elected for the ensuing year: President, Frank S. Vernon, Farmington; vice president, Ira A. Marshall, Farmington; recording secretary, G. L. Johnson, Kennett (re-elected); corresponding secretary, T. C. Allen, Bernie (re-elected); treasurer, W. R. Goodykoontz, Caledonia (re-elected). The citizens of Fredericktown afforded the visitors every entertainment that could be utilized, and some proposed trips were declined on account of lack of time.

The following scientific program was rendered and each number was earnestly and ably discussed. "Nasal Obstruction," H. L. Reid, Charleston. "Observation of Some Peculiar Obstetrical Conditions Encountered in General Practice," G. H. Greenwood, Fredericktown, Mo. "Pneumonia: Some Peculiar Cases," J. A. Atkisson, Morehouse. "Concussion of the Brain," Ira A. Marshall, Ironton. "Malaria in the Puerperium," W. S. Hutton, Fornfelt. "Cystitis," C. R. Fleming, Farmington. "The General Practitioner's Diagnosis of Nasal Sinus Diseases," O. A. Smith, Farmington. "Haematuria, Particularly as to Etiology and Diagnosis," Elmo Porterfield, St. Louis. "Medical Jurisprudence," Hon. Benson B. Cahoon, Fredericktown, Mo.

BOOK REVIEWS

A TEXT BOOK OF DISEASES OF WOMEN. By J. Clarence Webster, B. A., M.D. (Edin.) F.R.C.P.E., F.R.S.E. Professor of Obstetrics and Gynecology in Rush Medical College, in Affiliation with the University of Chicago, etc., etc. 372 Text-Illustrations and 10 Colored Plates. Philadelphia and London, W. B. Saunders Co. 1907.

This work chiefly is based on an extended clinical experience but unusual prominence in it is given to the scientific basis of each subject under consideration. A special endeavor has been made to include all the important original investigations of recent years, so that Webster's book actually represents the present-day knowledge upon a subject of the greatest importance to every practitioner.

CATHOLIC CHURCHMEN IN SCIENCE. Sketches of the Lives of Catholic Ecclesiastics who were among the Great Founders in Science. By James J. Walsh, M. D., Ph.D., LL.D., Professor of Medical History, Fordham University Medical School, and Professor of Physiological Psychology in St. Francis Xavier's College, New York. Philadelphia: American Ecclesiastical Review (Dolphin Press). 1906. Pp. x-221. Price, \$1.00 (plus 8 cents postage) net.

Dr. Walsh's book is of special interest to physicians because four of the sketches are those of practising physicians and all of the men whose lives are given made contributions to science that have been of the greatest usefulness in medicine.

MODERN MEDICINE. Its Theory and Practice. In Original Contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia and in McGill University, Montreal. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 1,000 pages each; illustrated. Volume I *just ready*. Price per volume, cloth, \$6.00, *net*; leather, \$7.00, *net*; half morocco, \$7.50, *net*. Lea Brothers & Co., Publishers, Philadelphia and New York, 1907-1908.

From every viewpoint, scientific, literary and practical, this new work just coming from the press promises to be the most important ever undertaken in medicine. A complete restatement has become necessary to convey a grasp of the present development of medical science and art. Fortunately, this is now about to be done, and under

the best auspices. Professor Osler combines every quality essential for leadership in such an enterprise.

Familiar with the literature of medicine, he is also acquainted with the personnel of the leaders in the various lines of investigation. So recognized, he has been able to unite them in a skilfully planned work covering the whole domain.

The first volume, which has now come to hand, contains an Introduction by the Editor himself, which he entitles "The Evolution of Internal Medicine"—a most interesting history of medicine from pre-Hippocratic times to the present day.

To this is added a forecast of the lines on which further development would most fruitfully proceed.

Dr. J. G. Adami, of Montreal, begins the body of the volume with an article on "Heredity and Predisposition." The article is thoroughly up to date, and from the charm of the author's style, this most important subject is made very easily understood.

"Auto-intoxications," from the pen of Dr. Alonzo Engelbert Taylor, of San Francisco, is another of these conclusive and exhaustive articles on a difficult subject. His treatment of the question of Gastro-Intestinal Auto-intoxication is of the most illuminating character, and is full of helpful suggestions to the general practitioner in the treatment of diseases consequent on malnutrition.

Nearly 60 pages are devoted by Dr. Charles F. Craig, U. S. A., to the consideration of "Malarial Fevers." The article is comprehensive, accepting, of course, the theory of transmission by mosquitoes, and pointing out that a fever which is not cured by the proper administration of quinine is not of malarial origin. His suggestions as to prophylaxis are in every respect valuable.

Other thoroughly practical clinical articles are those by Dr. Thomas B. Fitch, of Johns Hopkins, on "Diabetes and Gout;" by Dr. J. M. Anders on "Obesity;" and by Dr. George F. Still, of London, on "Rickets." The scientific physician will regard the profoundly scholarly article on "Metabolism, Normal and in Disease," by Chittenden, of Yale, as of fundamental value. There are excellent articles, also, by Drs. Alfred Gordon and David L. Esdall, of Philadelphia, Alexander Lambert, of New York, F. G. Novy, of Ann Arbor, James H. Wright, of Boston, and others.

Modern Medicine, the best fruitage of the new era, is a work for every physician who would keep qualified for the full discharge of the duties attaching to the most responsible of all professions.

AMERICAN MEDICAL ASSOCIATION.

Next Annual Meeting at Chicago, 1908.

President: JOSEPH D. BRYANT, New York City.
President Elect: HERBERT L. BURRELL, Boston.
Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Springfield, May 1908.

President: W. S. ALLEE, Olean.
Vice Presidents:

THOS. B. COOKE, Rayville; A. H. VANDIVERT, Bethany; CHAS. HOUGH, Jefferson City;
J. P. DUNIGAN, Holliday; O. F. PILE, Memphis.
Secretary: A. W. McALESTER, Jr., Kansas City.
Assistant Secretaries: PAUL Y. TUPPER, St. Louis; GAIL ALLEE, Lamar.
Treasurer: J. FRANKLIN WELCH, Salisbury.

Medical Section.

Chairman: T. F. LOCKWOOD, Butler. Secretary: GAIL ALLEE, Lamar.

Surgical Section.

Chairman: H. E. PEARSE, Kansas City. Secretary: P. Y. TUPPER, St. Louis.

ORATORS.

Oration on Medicine:

JOHN H. DUNCAN, St. Louis.

Oration on Surgery:

HERMAN E. PEARSE, Kansas City.

COMMITTEES:

Committee on Scientific Work.

H. E. Pearse, T. F. Lockwood, P. Y. Tupper, Gail Allee.

Publication Committee.

W. B. Dorsett, Chairman. M. B. Clopton, M. C. Shelton.

Committee on Public Policy and Legislation.

C. E. Fulton, Chairman; H. E. Pearse, Geo. W. Wilson.

Committee on Medical Education.

N. B. Carson, Chairman; C. M. Jackson, E. W. Schaffler.

Committee on Tuberculosis.

Wm. Porter, Chairman; W. M. Bayliss, J. B. Norman, M. P. Overholser, Tinsley Brown.

COUNCILLOR DISTRICTS AND COUNTIES IN EACH DISTRICT.*

F. J. LUTZ, Chairman.

E. J. GOODWIN, Secretary.

First District.—Councillor, C. L. Evans, Oregon. Counties: Holt, Atchison, Nodaway.

Second District.—Councillor, W. T. Elam, St. Joseph. Counties: Buchanan, Andrew.

Third District.—Councillor, W. E. McKinley, Denver. Counties: Harrison, Worth, Gentry,

DeKalb.

Fourth District.—Councillor, C. R. Buren, Princeton. Counties: Grundy, Sullivan, Mercer,

Putnam.

Fifth District.—Councillor, E. E. Parrish, Memphis. Counties: Clark, Scotland, Schuyler.

Sixth District.—Councillor, H. Jurgens, Edina. Counties: Adair, Knox, Lewis.

Seventh District.—Councillor, L. W. Dallas, Hunnewell. Counties: Shelby, Marion, Ralls.

Eighth District.—Councillor, W. B. Dorsett, St. Louis. Counties: Lincoln, St. Charles, St.

Louis, Pike.

Ninth District.—Councillor, Woodson Moss, Columbia. Counties: Audrain, Boone, Howard,

Callaway, Warren, *Montgomery*.

Tenth District.—Councillor, C. W. Reagan, Macon. Counties: Macon, Randolph, Monroe.

Eleventh District.—Councillor, J. D. Brummall, Salisbury. Counties: Chariton, Carroll, Liv-

ingston, Linn.

Twelfth District.—Councillor, E. H. Miller, Liberty. Counties: Platte, Clay, Ray, Clinton,

Caldwell, Daviess.

Thirteenth District.—Councillor, N. P. Wood, Independence. County: Jackson.

Fourteenth District.—Councillor, C. T. Ryland, Lexington. Counties: Lafayette, Saline,

Cooper.

Fifteenth District.—Councillor, M. P. Overholser, Harrisonville. Counties: Cass, Johnson.

Sixteenth District.—Councillor, J. R. Buchanan, Nevada. Counties: Bates, Vernon, Barton.

Seventeenth District.—Councillor, R. D. Haire, Clinton. Counties: Pettis, Henry, Benton,

St. Clair, *Hickory*.

Eighteenth District.—Councillor, Frank DeVibiss, Eugene. Counties: Miller, Moniteau,

Morgan, Camden.

Nineteenth District.—Councillor, G. Ettmueller, Jefferson City. Counties: Cole, Osage,

Maries, Gasconade.

Twentieth District.—Councillor, F. J. Lutz, St. Louis. Counties: Franklin, St. Louis City.

Twenty-first District.—Councillor, B. M. Hypes, St. Louis. Counties: Jefferson, Ste. Gene-

vieve, Perry.

Twenty-second District.—Councillor, J. D. Porterfield, Jr., Cape Girardeau. Counties: Scott,

Madison, Cape Girardeau, Mississippi, *Bollinger*.

Twenty-third District.—Councillor, D. R. Corbin, Bloomfield. Counties: Stoddard, Dunklin,

Pemiscot, New Madrid.

Twenty-fourth District.—Councillor, J. J. Norwine, Poplar Bluff. Counties: Wayne, Butler,

Ripley, Carter.

Twenty-fifth District.—Councillor, F. L. Keith, Flat River. Counties: Washington, Reynolds,

Iron, St. Francois.

Twenty-sixth District.—Councillor, R. L. Johnson, Rolla. Counties: Crawford, Phelps, Pu-

laski, Laclede, Dent, *Dallas*.

Twenty-seventh District.—Councillor, H. C. Shuttee, West Plains. Counties: Howell, Shan-

non, *Ozark, Oregon, Texas, Wright, Douglas*.

Twenty-eighth District.—Councillor, T. A. Coffelt, Springfield. Counties: Greene, Lawrence,

Barry, Stone, Christian, Webster, Polk, *Taney*.

Twenty-ninth District.—Councillor, A. R. Snyder, Joplin. Counties: McDonald, Newton, Jas-

per, Cedar, *Dade*.

*Counties in italics are not organized.

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION

Volume IV

AUGUST, 1907

Number 2

ORIGINAL ARTICLES

THE SURGICAL TREATMENT OF ENLARGED PROSTATE.

BY C. E. FULTON, M. D., SPRINGFIELD, MO.

Enlargement of the prostate gland to a greater or less degree may take place either with or without disturbance of the function of micturition. In the former instance it will receive no notice from the patient and need not concern the medical attendant. It is only when the voiding of urine is interfered with that enlargement of this organ acquires significance. The surgical treatment therefore resolves itself into the relief of the urinary obstruction, either temporarily by the use of a catheter or permanently by removal of the overgrowth. I am aware that catheterization is not usually thought of as a surgical procedure and that owing to the ease and painlessness with which it can be performed, it is a task often allotted to the patient. I believe this easy-going way of regarding the use of the catheter is a gross wrong. A few years ago there was an excuse for it. At that time extreme cases requiring daily catheter relief had no other alternative and to teach them the careful and cleanly use of the catheter was justifiable. To-day it should be regarded in a different light.

Modern surgery has something so much better to offer these sufferers, that the routine use of the catheter is no longer worthy of consideration. There are cases, however, which do not require relief daily and perhaps not oftener than once or twice in a year. They may have enlargement which will only cause occasional obstruction when some exciting cause is super-added; such as an indiscretion in diet, or undue exposure to cold and wet. It is in such cases that the catheter has its place; and then only in the hands of the surgeon and with all care as to cleanliness and asepsis that should be accorded a minor surgical operation. When the calls for this kind of relief become so frequent that the surgeon can not give it his personal at-

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

tention, the time has come for permanent relief through operative removal of the hypertrophied masses, or of the entire organ. The operative treatment is now practically narrowed down to prostatectomy. There may be occasional cases in which some of the other procedures are justifiable, or there may be good authorities who advocate other measures as a routine practice; but I think it is not far wrong to say that the majority of operators regard prostatectomy as the operation of choice. The manner of doing this operation, judging from the descriptions of the technique of various operators, is in a somewhat unsettled state. Not so much because one advocates the suprapubic, or another the perineal, operation, although this is made to figure most prominently in discussions; but because of what seems might be of more vital importance, namely:—What these different operators remove. In their descriptions the anatomical relations of the sheath and capsule of the organ are often lost sight of and these terms are used interchangeably.

To avoid confusion it should be borne in mind that the outer covering or sheath of the gland is a thin fibrous membrane derived from the recto-vesical fascia and that the prostatic plexus of veins lies immediately under it. Next to this is the outer muscular covering, the capsule of the gland, which has no well defined line of demarcation between it and the trabeculae of muscular tissue in the interior of the organ in which the glandular elements are contained. I am speaking now of the normal organ. In hypertrophy involving the glandular masses in the lateral lobes a line of cleavage forms between them and the capsule, which seems to give to the latter a more distinct anatomical entity.

There are descriptions of prostatectomy in which only the enlarged masses are removed, and it is worthy of note that the amount of obstruction is by no means proportionate to the size of these masses. In one of my cases, in which there had been complete obstruction, the hypertrophied glandular structures from both lateral lobes only weighed one hundred and eighty grains, and though it is now twenty months since the operation, he has never been obliged to use a catheter. I have never heard or read a report of the removal of so small an amount of prostatic tissue. There are other descriptions in which in addition to one or both lateral lobes the middle lobe is removed; still others in which the entire organ, including its capsule and all three lobes, are removed; sometimes with all or part of the prostatic urethra and sometimes without any of it. You will not have searched far in the literature of this subject until it will become clear to you that in some of these descriptions the operator was by no means certain just what he had removed. Some who are careful of their statements do not pretend to know until they receive the pathologist's report. As a rule the suprapubic operation, notably that of Mr. Freyer of London, is the more complete. If he is cor-

rectly quoted he specifically advocates separating the capsule from the sheath and removing the entire organ, leaving the anterior portion of the prostatic urethra. The perineal operation as usually described does not disturb the capsule and hence does not expose the prostatic plexus of veins; in short it is, as a rule, more of a partial prostatectomy. The most gratifying thing concerning the operation is the fact that no matter what method has been followed by any reliable operator through a series of cases large enough from which to draw conclusions, the results are so far superior to routine catheter life that the latter is deserving only of condemnation.

Without going too deeply into statistics let us for a few moments weigh this statement. On the side of prostatectomy the operation may be charged with a mortality of something less than five per cent. in the hands of some operators to something more than twelve per cent. in others. While making this charge it should not be forgotten that many, probably a majority of these operations were done on men for whom catheter palliation had already been practised until it was no longer possible and they were suffering from cystitis, and, it may be, uremia.

Again, it can not be claimed that all who recover from prostatectomy, recover with perfect urinary function. Urinary incontinence will claim the larger share of imperfect results; and while it may be difficult to convince one who is so unfortunate that his last state is not worse than his first, if you will frankly tell him in the beginning that he is liable to incontinence the chances are that he will assume the risk. For catheter palliation statistics are somewhat meager. A. H. Ferguson of Chicago quotes Harrison, Lydston and others as having shown that the expectation of life under this regime is only about four or five years, but you who have been in general practice for a number of years have a knowledge on this score that makes statistics unnecessary. If your experience coincides with mine, you have felt the more years some of these patients live the greater their misfortune. True I have known some who got along with a fair degree of comfort for many years, but in by far the greater number, attacks of prostatitis, increasing in severity and frequency, have made life, at least to an impartial observer, less desirable than the other alternative. Prostatectomy has saved many of these aged patients to lives of comparative comfort after they had actually become uremic, with not only good urinary function, but with changes in the urine showing improvement in the condition of damaged kidneys. Why should it so often be a last resort? Why should it not be employed as soon as the obstruction so interferes with the proper function of the bladder that the patient is obliged to resort to frequent catheter drainage, or as soon as residual urine is found to be a nearly constant symptom? My own experience with the surgical side of these cases is small. It is rather as a

general practitioner than as a specialist that I present this brief paper to you, and if I have succeeded in arousing any interest, where such interest needed arousing, in the advantage of prostatectomy over the slipshod habit of providing the prostatic with a catheter to be used by himself at his own pleasure the main purpose of this paper will have been attained. I feel sure that if those of you who have not already done so will carefully investigate the subject you will agree that there is need for a change of sentiment regarding the treatment of prostatic hypertrophy.

A FEW POINTS RELATIVE TO PROSTATECTOMY*

BY C. F. ROBERTS, M. D., KANSAS CITY.

In the beginning I want to beg pardon for imposing upon your good nature a subject which has been so frequently brought before you during the past few years. I have nothing new of importance to offer but feel there are some points relative to the operation which, if studied more carefully, would help us to reduce our mortality. I am very glad to see the pendulum is now swinging back to its proper place that of careful and conservative surgery along this line. Fortunately for the poor prostatic sufferer, the day has come when the operator is considering more conscientiously his mortality table than merely adding to his list or number of operations. As in all operations of whatever nature or kind, it has had its fad period and all those who wielded the knife thought they must fall in line and keep pace with the procession; so it has been with the operation for the removal of the prostate gland. Very few operators desire to boast of their wonderful results and low death rate during the beginning of prostatic surgery, but thanks to the careful and patient students who have by their faithful and untiring work, overcome some of the causes of our high death rate, we now undertake the operation with more courage and brighter prospects for our patient than we did a few years ago.

History.—It is very interesting to note, when we come to consider the history of this operation, that most of the work has been done within the last ten years, and the past twenty years will cover the greater part of the work along this line.

More interesting does it seem when we think of the many conditions produced by the abnormal prostate that the consideration of its surgery should be so long overlooked during the past years of progressive surgery.

The symptoms and conditions produced by the abnormal pros-

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tate have been recognized ever since history began, but little did they know of the true pathological conditions existing. In this brief paper we cannot think of dwelling upon the history and must be content by expressing our great appreciation for the earnest work of each man who has added one or more links to the chain of prostatic surgery or has strengthened a single weak link in the chain.

Glancing for a moment at the pages of the early history we find that to Herophilus must be given the credit of first using the term prostate; but we find he misapplied the term and really used it in referring to the seminal vesicles. To Sir Everard Holmes we will give the credit of recording some of the symptoms observed in these conditions. Riolanus during the sixteenth century expressed the belief that the bladder could be obstructed by the swelling of the prostate and suggested the incision of the neck of the bladder for its relief.

Then came the practice of tunneling by the catheter of the prostate gland recommended by John Hunter, Home and Brodie. The retention of the catheter in the urethra for a period was strongly advised by some.

We find that Guthrie during the early part of eighteenth century was among the first to bring to light true surgical interference with the vesical neck and prostate. Then later we find many advocating the Bottini operation which method is still used by some operators at the present day.

As we turn the pages we find year by year more extensive and radical work being done until at the present day the removal of a portion or the entire gland is a common operation.

Etiology.—The etiology and pathology of the condition under consideration are not as well understood or explained as we would like to have them. All seem to agree that some inflammatory process is the main etiological factor, let the cause of the inflammation be what it may, just so it is of a chronic nature or continues long enough to cause some true pathological change.

Pathology.—We will consider the pathology but briefly. The process of hypertrophy may take place in any portion of the gland. In most of the cases that have fallen under my care I have found the change taking place in one or both the lateral lobes, therefore I do not believe we are justified in using the term middle or central lobe which we hear referred to so often by the present writers and in text books.

By careful dissecting we find that the portion referred to as the middle lobe, in many cases is merely a projection of the upper part of one of the lateral lobes which has grown towards the center, although we have in many cases in the posterior wall of the vesical orifice the little fibrous tumor deposits which act as a valve and com-

pletely close the urethral opening. Some of these growths are entirely independent of the lobes of the gland.

The consistency, size, and shape of the gland when enlarged depend upon which of the normal tissues have been affected by the process of hypertrophy.

These conditions may be classified in two distinct forms, fibrous and adenomatous. In the first form the connective tissue of the gland is affected and we find the shape and consistency of a part or the whole prostate may be changed to a hard irregular mass. The gland tubules are destroyed by the deposit and contraction of this fibroid deposit.

In the second form the epithelial or secreting portion of the gland, is involved by the process and we have in this class as a rule a tumor which is round or oval, and of a semi-solid or elastic consistency. By the inflammatory process the tubules are obstructed and in this way the little cyst-like nodules are formed which may vary greatly in size.

In a great many cases if not in the majority we find both of the above conditions existing. Therefore we have the so-called mixed type, with areas of fibrous formation intermingled with the adenocystic tumors.

The malignant and other forms of over-growth will not be considered in this paper, except that I want to call the attention of the members present to a condition I have noticed in quite a number of cases of the fibrous, or cancerous growths, and that is a marked decrease in the transverse diameter of the bony outlet of the pelvis, or in other words a narrowness between the rami of the pubic bones. I cannot give any reason why the two conditions should be associated, nor can I see how there can be any connection between the two, therefore I wish to ask if this condition has been noticed by any of these members present.

I also want to state that in my belief cancerous prostates are more frequent than we have thought in the past, for during the past two years I have been investigating along this line and have had some of the glands which I had removed several years ago examined and they proved to be of a malignant nature.

Symptoms and Diagnosis.—I only wish there were some certain signs or symptoms which would direct the attention of the physician to the bladder, and prostate much earlier in the course of the diseases of these organs.

Now if there is one single thought that I want these few remarks to impress upon your minds more than another, it is to take these conditions under consideration as early as possible and do not postpone the proper treatment, be it palliative or surgical.

I know in my limited experience I have had many a case come under my care in which, if it had been taken earlier, the results would

have been much better and my death rate much lower.

Now do not think for one moment that I want to censure the general practitioner in the least, but I do want to impress upon your minds the great necessity of making thorough examination much earlier in these cases than is the general rule. Do not put off the poor old man who comes to you complaining of some difficulty with the urinary function, with merely a prescription directing him to take this and report again in a few days. In a great many cases the very change that causes much damage and the future life of your patient to be one of torture may take place during these few days.

These changes and conditions invite infection with all its results. We must make our diagnosis by first, the symptoms obtained from the patient; 2nd, rectal palpation; 3rd, thorough examination of the urethra; 4th, vesical exploration; 5th, repeated measurements of the residual urine, and 6th, careful cystoscopic inspection.

About the first symptom the patient complains of is some difficulty in starting the flow of urine, next there is a deficiency in the force of the stream to a more or less degree.

Then finally he complains of the frequent calls to urinate especially at night, or comes to you saying his urine is passing all the time.

By rectal palpation we can estimate the size of the gland and its consistency and determine if possible whether the enlargement is fibrous or glandular in character. In many cases a stone or tumor in the bladder may be found while proceeding in this manner.

Where the gland is not too high or too large, we can feel the upper surface and determine the portion which is enlarged; occasionally stony deposits are found in the gland. By careful examination by way of the urethra we can determine if stricture exists, the condition of the mucus membrane and the course of the canal through the gland.

By careful exploration of the bladder with the sound we can in many cases determine if a tumor or stone be present. Repeated measurements of the residual urine should be made in all cases under your care so as to determine the progress of the disease.

The condition of the urine always being noted, by the aid of the cystoscope we can determine the condition of the mucous membrane of the bladder, and make a complete inspection of the same.

The enlarged middle portion in many cases can be seen. In some cases the enlarged lateral lobe may be seen projecting upward into the vesical orifice, and by the aid of the retrospective instrument we may be able to find calculi which are in back of the prostate and were not discovered by the sound.

Operation.—In this operation as in all operations where there are two avenues of approach, or two methods of procedure, we find

many claiming that the one or the other is by far the best or the only way to proceed.

If we will recall a few years ago when some of our leading gynecologists began to remove the uterus by way of the vagina, we will notice the great opposition to the operation set forth by many equally as good operators as those who were performing vaginal hysterectomies.

But nevertheless the operation has gained a foot-hold and has come to stay. So we find men of equal ability and experience claiming the suprapubic or the perineal operation as the only rational route. Now can we say that the gynecologist must do all his work by one method? Not by any means, but let us be more generous and give him the right and privilege of selecting the route his judgment tells him is the best to give his patient the most benefit possible in every respect.

The same is true in this operation; every case should be studied carefully and every condition noted. Then the operator, in justice to his patient and himself, must select the route which he thinks the most suitable for the case under consideration.

It is interesting to read the reports of different men and institutions in regard to the route preferred; among the collection I have one hospital report of one hundred and thirty-four operations, all done suprapubically. This report also contained a statement that in their opinion no one should think of doing the perineal operation. For my own part I prefer the perineal operation in all cases, unless there are conditions calling for the suprapubic and I will give some of the main reasons for this.

In the first place the mortality rate should be considered, and as one person has such a limited number of operations we must not think of drawing any conclusions from the record of one, but by the results of a great number of cases we can prove which is the best.

Dr. Tuffier, although he advocates the suprapubic operation, reports 2,227 cases operated upon by such men as Young, Albarran, Proust, Watson, Horwitz and Hartman with a mortality for the suprapubic route of $6\frac{1}{4}$ per cent., while the perineal was only 4 per cent., $2\frac{1}{2}$ per cent. in favor of the perineal route.

He states as far as renal insufficiency is concerned the mortality is about the same in the two operations—35 per cent. in the perineal, 33 per cent. in the suprapubic. Shock he says is the cause of death in 17 per cent by the perineal while 22 per cent. is the rate by the suprapubic route.

From a report of Drs. Tenney and Chase covering 3,000 cases, we find their mortality by the perineal route was 7 per cent., while by the suprapubic it was 13 per cent., or nearly twice as great.

Dr. Deaver admits that most of the first operations he per-

formed were by the perineal route but after seeing Dr. Fryer operate by the suprapubic route he changed his method and now advises the latter operation, but makes the statement in his book (page 208), that the mortality of Fryer's operation is higher than that shown by the statistics of the modern perineal operators.

In making an examination for this operation we should carefully inspect the abdominal wall and the perineal region. The suprapubic operation should never be done where there is a fat abdominal wall unless there is some condition demanding it, on account of the great danger of sloughing or infection of the fatty tissue. One of the points in favor of the perineal section is the presence of stricture of the deep urethra which has been present in a few of the cases coming under my care. In some cases old urinary fistulæ are also found, either of which should be taken care of at time of operation.

As far as viewing the field is concerned I find very little difference and must say it is of little aid to me in either operation as I depend entirely upon the sense of touch. Dr. Watson makes the statement, while speaking in favor of the suprapubic, that the perineal distance is too great and that only one-third of the operations can be done by that route. Dr. McGill finds the same objection to the perineal work but I must agree with Dr. Moore, who states that the operator's fingers grow longer as he grows in experience. Although being blessed with very long fingers, I must say I have found as much trouble if not more in the suprapubic work, especially where there is a very fat abdominal wall. When we come to the consideration of the bladder walls it is a different question. In the suprapubic we have to cut through both walls of the bladder while by the other route the true vesical cavity need not be disturbed and the vesical neck, which is a very important point, is left in much better condition as far as the future welfare of the patient is concerned.

I do not think we need consider the anterior incision in the bladder wall as it does not interfere with the urinary function to any extent, but I do find in some cases, the contractions and deformities produced by cutting through the walls on each side of the urethral orifice, produce some very unsatisfactory results.

I have under my care at the present time a case in which I did a suprapubic operation three years ago, which has incontinence which I believe from the appearance obtained by the aid of the cystoscope, to be due to the results of cicatricial tissue. He had perfect control of the urine for nearly eighteen months following the operation. There are no new growths whatever in his case. I also have a case in the same condition who was operated upon in Chicago nearly five years ago who has had more or less trouble about retaining the urine for over two years. I know it has been my experience in quite a

number of cases to tear into or destroy the urethral orifice and I think many have met with the same fate.

The Perineal Operation.—There are a number of incisions recommended by different operators for the perineal operation. The median, the T, the inverted Y, and the semilunar.

The transverse or semilunar is much better for the operator as it gives him much more room and the best view of the field, but it is not the best for the patient. In fact I think it to be the most unsatisfactory incision we can make as far as the repair of the parts is concerned. I have given the subject quite a little study and from my observation I have found that the wound is from ten days to two weeks longer in healing and sloughing of the perineal tissue, especially the fat and the rectal walls, occurs much more frequently by this incision. The reason for this in my opinion is that there is more damage done to the circulation than by the median incision.

Drainage.—The subject of drainage I think an important one and one of the strongest in favor of the perineal operation. Now should we be so unfortunate as to have a fistula following the operation the patient is much better off in every respect if it be perineal instead of suprapubic.

Some operators claim the perineal tissue is more readily infected, but in my experience I have had as much if not more trouble with the suprapubic operation, and then we are farther from the peritoneal cavity. I have had one death due to peritonitis due I think to direct infection.

Now let us consider the conditions present; we have on every hand cut and torn tissue, most of which is poorly supplied with blood, which is constantly bathed with an easily or in many cases an already infected urine. Many little pockets and cavities exist ready to receive and hold all material passing their way.

Therefore the main object is to see that this material of whatever nature has a free and ready way of escape.

Now I have tried to be just and fair in considering the two operations, but for my part I cannot see how we can expect to get as good drainage by the suprapubic route where every thing has to be syphoned up hill and the end of the rubber tube at any position in the bladder, for well do we know it cannot be retained in one place. It is more important I think to have the capsule cavity properly drained than the bladder proper, for absorption and infection will take place much more rapidly from it.

Who can say we can drain the above cavity better by the suprapubic route. I know some will say drain through the urethra, but how long can we do so until we have an inflamed urethra from meatus to posterior end. Now the drainage that has given me the best results by the perineal route is a double rubber tube; this must

not fill the incision completely but allow a part of the water to escape along the sides freely.

In most cases through one of these tubes for the first twenty-four or thirty-six hours I keep a stream of hot water flowing into the bladder, allowing it to escape part of the time through the other tube but always instructing the nurse to see that the escape tube is closed and the water forced to escape around the tubes at intervals sufficient to keep the parts absolutely clean.

I use no gauze packing except in those cases where hemorrhage demands it. Unless the incision is unusually long I never close any part of it. The only sutures or stitches taken is one to hold the drainage tubes in place.

Still another point in favor of the perineal work is the natural drainage after all tubes are removed and the patient is able to be placed in the sitting position, which I think should be encouraged in all cases as early as possible.

DISCUSSION.

Dr. J. D. Griffith, of Kansas City: I have not had a very wide experience, but I have done a few operations, and seen quite a number. We have our preferences as to the route which we take to the bladder. In the little operative work that I have done, I have pursued the suprapubic method. I do not say that the credit for this belongs to Dr. Freyer. It is unsettled yet as to whom the honor belongs. However, this operation, we must remember, has to be done by sensation, not by sight. The eye is in the finger altogether, whether we go by the perineal route, or whether we go suprapubically. The only advantage that I have found in the suprapubic route was the fact that there is no cutting after you get into the bladder. You don't have to use any instrument to open the mucosa down to this capsule of the prostate. You sacrifice the entire neck of the bladder and the mucous membrane of the urethra, as a rule, whether you go by the suprapubic route or whether you go by the perineal route. I have yet to see a specimen of a prostate that has been taken out, where the mucous membrane of the urethra has been left intact. I have not had any trouble. I have lost my percentage, and I expect we all do. I don't think the ease of work is necessarily due to the size of the prostate that we extirpate. It is a mutilating operation, but I think the mortality here is due to extraneous causes, as a rule, and where we take the cases as they come, without selection, then it is that we have got to take our death-rate. The doctor has very clearly set forth his preference for the perineal route, but I am going to stand by the bridge that has carried me, so far, the suprapubic.

Dr. O. B. Campbell, St. Joseph: The first essayist brought out some very interesting points: First, the use of the catheter, and he very rightly condemns the practice of placing the catheter in the hands of the patients for their use and relief, and quotes Ldyston's opinion that catheter life only lasts about five years. It is my opinion that catheter life might last twenty-five years, not in the hands of the patient, but in the hands of the physician and surgeon who has a proper knowledge of asepsis. The question arises, what are we going to do with these old men who have enlarged prostate glands? Shall we endorse the second position taken by the first essayist, and advise early operation? Not upon doctors at any rate. There

is not a gentleman present who would want his prostate operated upon. He is not old enough to have it operated upon. Now then, let us have some compassion for our patients, and until we surgeons can do less mutilative operations; until we can obtain better results from prostatectomy, let us not urge the early operation, in the majority of cases, but let us consider well the welfare of the man who is beginning to have retention of urine. Here is where somebody blunders, and here is where the damage is created that makes it a very serious matter for us to remove the prostate, because infection is often carried to the bladder by means of the catheter. In skilled hands the patient might have his urine drawn off and live a very comfortable life for many years. It is not usually necessary for the urine to be drawn every day, but as a rule periodically. These patients will come from one month to two months, perhaps six months or a year, and not require the removal of the prostate gland.

The second essayist has brought out some very good points relative to the diagnosis of enlarged prostate. I agree with him in every particular, and I do believe that it is not sufficient to merely say that our patient has an enlarged prostate. We must diagnosticate more carefully, by all the means at our command—the cystoscope, bimanual examination, palpation, etc. We should use all of these, and determine as to the malignancy of the prostate. Of course, malignancy should require early removal, but I am not yet ready to say that the presence of an enlarged prostate gland means that we should do a prostatectomy for fear the bladder should become infected. When I can get better results from prostatectomy, when surgery provides better results from prostatectomy, then I am ready to recommend early operation.

Dr. W. T. Elam, St. Joseph: This interesting subject having come into prominence practically within the last decade, the end results are still to be determined. Early diagnosis is an important thing, in order that the physician or surgeon may be able to properly advise his patient as to whether the prostate should be removed early, or whether he should wait until after infection had taken place. The risk would not be so great did we but wait on infection of a local character, but as a rule, when you have infection, you have involvement of the bladder, the ureters, the kidneys, and often uremo-septic products in the blood. The great majority of prostates that are operated upon are not operated upon for the mere removal of the prostate. The causes of the large mortality percentage, are the advanced age, the infected condition of other organs, and the poisoned condition of the system as a whole. That is what makes the mortality; it is not the operation of prostatectomy, whether you do it by the perineal or by the suprapubic route. Every case should be studied, and a man should not ally himself, as a matter of routine, with one route as against another, but should use his judgment. As the first essayist has said, the time is coming when you are not going to remove at every operation all the prostate, just because the prostate is there; the time is coming when you will remove only that portion of the prostate which is revealed by the sense of touch or sight to be diseased. There is no occasion for tearing out the prostatic urethra for the removal of a nodule the size of a marble. The time is coming, in my judgment, when men will perform operations of a conservative character upon the prostate, and these operations will contemplate only the removal of the diseased tissue. It is better that they should be compelled to submit to a second operation at some future time, for an additional growth, if necessary, as the prostate, in most of the early cases, is not wholly involved. After the patient has reached the age of 65 years, there oftentimes is a more or less diffuse involvement.

Now, the question is, what do you perform the operation of prostatectomy for? First, to meet extreme conditions that develop, and second, to remove the obstruction, i. e., the prostate, and to do away with the use of the catheter. The suprapubic route, in my judgment, if that portion of the prostate is involved which is accessible by the suprapubic route, is the operation which will admit and allow of functional activity being to a certain extent maintained. We all know that the prostate is a genital organ, and a certain amount of functional activity does remain in those cases where the suprapubic route has been used.

Now, as to drainage, I want to take issue with Dr. Roberts. I believe that the suprapubic route is by all means the best route for drainage, where you have an infected bladder filled with infected urine. As I pointed out in my paper last year, you can remove the tube and replace it at will. You can irrigate the bladder. If the bladder fills up and the tube clogs up, you can remove, sterilize and replace without pain or difficulty. You can remove the prostate and put in a perineal drain, but unless you destroy the internal sphincter—which you do not do, or should not do—you will find that the bladder will oftentimes expel the tube down into the perineal wound, out of the field of action of the internal sphincter, and, as a result, the bladder fills up and periodically empties itself. This calls for bladder work, which it is desirable to avoid. Where you need drainage of the bladder—and you do in most of the advanced cases—you should, in my judgment, always adopt that plan that will most satisfactorily and continuously drain the bladder.

Dr. J. De Voine Guyot, of Jefferson City: I am somewhat surprised in these discussions not to have heard the Bottini operation as much as mentioned. I understand it is very widely condemned in the West, but not so among the Eastern operators. I believe that the condemnation of this operation amongst the men of the West is due to an improper selection of their cases. In the hands of my former chief of clinic, Dr. Horwitz, the operation has proved a very successful one in those cases of a fibroid enlargement of the middle lobe of the prostate. I would like to hear some discussion on this operation, as it has proved very effectual in the hands of my former chief, as well as myself.

Dr. Jacob Geiger, of St. Joseph: The perineal route for the removal of the prostate is generally looked upon as an advance in surgery, but to say that this is the only method of operating, or that the suprapubic is the only method, is not correct. We cannot adapt our cases to methods, but must apply methods to our cases. There is a very great difference in our cases of prostatic disease. First, a distinction should be made between chronic hypertrophy and acute inflammatory conditions, with enlargement and swelling of the prostate. There is a time for operating. In chronic cases, with gradual closure of the urethra, with residual urine, and before the patient's system is contaminated by septic urine, such patients should receive one or the other method. Now, we know that enlargements, or swellings of the prostate or neck of the bladder produce to some extent anatomical changes in the position of the prostate. In one man we will be able to reach it by the perineal route, within two inches, in another case four inches. Sometimes, when the lobes are enlarged, they are crowded up beside the bladder, so that the patient has to be operated upon by the suprapubic route. Then again, this class of patients with septic urine, residual urine, nausea, vomiting, and rise of temperature, are poor subjects for a radical operation. Such patients must be relieved. How relieved? Relieved of what? Not to remove the prostate, but merely to give relief to

the locked up poisonous urine, to save their lives for the time being, and to improve the general condition. This can be done by suprapubic cystotomy, or it can be done by urethral irrigation, by draining the bladder with a catheter, by washing it out, and giving the patient a little time to recuperate, then followed by a subsequent radical operation. If you remove the prostate in already septic cases with all the trauma, and laceration that is necessarily done, you will lose a large percentage, from shock, sepsis or trouble with the kidneys and suppression of urine.

As to drainage, I cannot understand how you can get as thorough drainage by the suprapubic route as by the perineal. I have had some experience—perhaps a dozen cases—with the suprapubic route, and the same number by the perineal. I have lost two by the suprapubic and none by the perineal, so far. But the thing is this,—we must not have more laceration than is necessary. If we want to prevent further spread of infection, let us give a good outlet. If we have perfect drainage, a good outlet, there is less danger. Therefore with a large tube placed in the perineal route, properly protected, that is, packing gauze alongside of it so as to keep the urine away from the raw surfaces, through which we can irrigate, and where there will be no locked up urine, the chances for recovery are certainly fair.

Dr. P. Y. Tupper, of St. Louis: Just one word regarding the accessibility of the prostate in prostatectomy. I must disagree with my friend, Dr. Griffith, when he says that this business is done in the dark. I believe that most of the steps in prostatectomy are done directly under the eye. Regarding the accessibility of the prostate, it seems to me—to use two terms that are not surgical—that it depends a good deal upon “push” and “pull.” Some of us recall the method of the late Dr. Bryson, in rendering the prostate accessible for operative procedure. He frequently opened the prevesical space by suprapubic incision, and with two fingers passed downward in front of the unopened bladder, the prostate could be pushed well down toward the perineum, after the perineal section had been made. It is remarkable how much space can be gained thereby, and how nicely the prostate can in a certain number of cases, be brought into the perineal wound. That is the “push.” After the perineal incision is made and the membranous urethra opened, a Young’s tractor is introduced into the bladder and traction made on the prostate. This is the “pull.” By means of this combined procedure, prostates that are most inaccessible are brought so well into the perineal wound that the steps of the operation are directly under the eye.

Dr. C. H. Wallace, of St. Joseph: I am one of those who believe that when a man begins to be robbed of the comforts to which old age is entitled, when he begins to have frequent urination and painful urination, he is entitled to the consideration that surgery offers for relief, and not the temporary one of the catheter. I believe that the danger period in a man’s life comes when he begins to use the catheter, and in my opinion the cases which invariably recover are those which are operated upon early, before the bladder becomes infected and the kidneys beyond. As to the methods of operation, the recommendation of an operation always carries with it the inference that its execution is to be done by a man familiar with this particular line of work, and upon this depends the question of mortality. The mortality in these cases we know is not alarming. The operation in those patients who have chronic infection of the bladder, ureters and seminal vessels, is always a hazardous one. I am somewhat wedded, in the great majority of cases, to the perineal route. Of course, the physical condition

of the patient should always be a guide as to which method is to be employed, and this can be decided only by the judgment of the operator himself. As to the inaccessibility of the prostate through the perineal route, one important thing is the position of the patient: the extreme flexion of the patient, a sand-bag placed under the hips; and the patient flexed upon himself to the limit, which throws the prostate down. This position furnishes a great advantage in the perineal route.

As to drainage, I have never been one of those who could understand how you could drain up-hill better than down. We learn from childhood that things run down-hill, and if we are going to drain the bladder, it seems to me that drainage should be done down-hill. Drainage depends entirely upon the condition of the bladder. If you have an uninfected bladder, a very little drainage is all that is necessary. If you have an infected bladder, the drainage is a most important matter, and I think we should have a tube kept in from ten to twelve or fourteen days, depending upon the condition of the bladder.

I would like to refer to one thing brought out in the discussion. I do not understand, and never have understood, why a man should recommend the Bottini operation. It is a blind, hazardous procedure. Why it should be advised as preferable to a surgical procedure that is within the view of both your eyes and your finger, I have never understood. I believe even the genito-urinary specialists are dropping it.

Dr. H. E. Pearce, of Kansas City: To the practitioner listening to this discussion this morning, unfamiliar with the work of prostatectomy, must come the impression that we do not know very much about what should be done with the man with an enlarged prostate, since some of us advocate an early operation, some of us advocate waiting and some of us advocate the perineal section and others the suprapubic, while we differ also in the question of drainage. There is no question of the benefits of prostatectomy, however, where the patient is in a condition of invalidism or threatened invalidism, and whether we operate early or late, we know one thing, that we are going to be forced to operate sooner or later if we wish to see our patient remain alive. I prefer operation at the earliest possible date that I can reach the patient. I prefer the attack through the perineum. I have twice opened suprapubically after operating through the perineum. I see no reason why both openings cannot be made in extreme cases,—cases with extreme infection.

There was a point brought out by one speaker that is worthy of more attention at the hands of those of us who are operating, and that is, the difference between drainage of the bladder and drainage of the operation wound. After the removal of such portion of the prostate as may be needed to secure a lowering of the trigone and the proper emptying of the bladder, there are two essential points in the technique to which every surgeon should give his attention. There is no doubt that I can see that field if the patient is placed in the proper position. The first point is to see that that portion of the bladder wall carrying large amounts of necrotic tissue is not left in a lacerated, open condition. If this has been torn or cut through, a reasonable attempt should be made for its repair; then the wound can be drained with a tube or a light gauze packing, or by iodoform gauze immersed in oil and balsam. This will drain the cavity from which the prostate has been removed, and if the bladder is drained by a catheter, we have the most perfect drainage possible, that is wound drainage and bladder drainage.

Dr. C. F. Roberts, in closing: In regard to early operation, some one has

said that we must not be in a hurry to operate. I tried to bring out that point in my paper as follows: If there is one single thought I want to impress upon your minds more than another, it is that we should take these conditions under consideration as early as possible, and not postpone the proper treatment, be it palliative or surgical. There is one other point, that in regard to the infected bladder, which is just the thing that we want the operation to prevent. We can take those old men and help them a great deal by giving them the right preparation, taking them into the hospital, and getting them into good condition. The cases that come to a man who is in this line of work are nearly always cases that have been neglected, and when we get hold of them they are just ready to take the last step. Therefore, we who make this line of work our daily vocation come in contact with that class of cases, and that is the reason that I made the remark in the paper, "Try to make thorough and careful examinations." Now then, the thing that caused me to write this paper was this. Just a short time ago I was visiting one of our neighboring cities, and while I was there I called on one of the physicians. A patient came in and told the physician that he was having some trouble with his urinary function. The physician wrote him out a prescription, and said, "take this and report again in a few days." It happened that that very case fell under my care. He came to me, and the first thing I discovered was a bladder that was two fingers' breadth above the umbilicus. We must investigate, and find out the conditions we are dealing with. We must try and make proper diagnoses. We must try to find out what we are dealing with, and then adopt the treatment that is indicated.

Do not think for a moment that I am going to do all my work by the perineal route. One of the doctors has mentioned removing these little growths. It was not removing these little tumors in the posterior part of the vesical neck that I had reference to. That is a different operation entirely, and would come under operations on the vesical neck or for tumors within the bladder.

I only wish I had time to elaborate on some of the points in my paper more completely. A few remarks now on the Bottini operation. At the present time, we have the Bottini instrument so that we can see fairly well what we are doing. We used to go blundering along in the dark sometimes relieving our patient, sometimes making him worse, and sometimes seeing him die. I have had a few cases that I think I have benefitted, and I have had cases where I know that I have done harm. Where the Bottini operation is really required, and where you get the most benefit, is where you have not got a thickened and hard middle lobe but a contraction of the vesical neck. Another thing we must learn is to differentiate between the prostate gland troubles and the vesical neck troubles.

SOME FORMS OF SCABIES SEEN IN PRIVATE PRACTICE.*

BY WILLIAM FRICK, M. D., KANSAS CITY, MO.

It seems to me worth while for a society like this to spend a little time in the discussion of this old subject. Especially does this seem to me pertinent, since I find that for several years in the immediate past it has proved a stumbling block to many physicians. The itching and consequent discomfort which practically always attend this disease are distressing and continue a long time if the disease is not recognized and cured. Cure is easily and quickly accomplished when the disease is recognized. It is, therefore, of great importance to recognize the disease early.

Hebra, in his classical work on the subject, has described the itch mite (*acarus scabiei*) and its habits so clearly that it seems impossible to improve on his description. Scabies, as we find it today in our dispensary practice and in some of our private cases, follows clearly the description he gives and these may be considered the normal or typical cases of the disease. I find these typical cases are nearly always recognized quickly and it is therefore unnecessary to spend any time in their consideration. It is the atypical cases which we find so frequently in our private practice which cause us to stumble.

This disease is not apt to appear at once as a generalized eruption, as we find is the case in eruptions caused by internal conditions. It is hardly to be supposed that a whole army of the mites will invade a human body at a single exposure. It is more likely that a few of them find lodgment on the patient and these few multiply until sufficient of them are present to draw attention to the disease they are producing. This process takes some time. Some idea of the time it takes may be gained from Kaposi's estimates that the female *acarus* deposits her eggs in the burrow she makes, at the rate of one or two daily until from twenty to fifty or more are deposited,—then dies. It requires from three to six days for the eggs to hatch, and a week or ten days more until she is ready to begin depositing eggs. We may thus see that it requires about two weeks for a fresh crop of the mites to begin work. These in turn would produce another generation in the same length of time, and a few generations produced in this way will create a vast amount of disturbance for the patient. All this would more rapidly take place if the mites were not interfered with. But the use of soap and water by people who have had the misfortune to contract this disease is a great hindrance

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to their development. For this reason we find many cases of sparse eruption among our private patients who patronize the bath quite freely. The *acarus scabiei* seems not to dislike the skin of a clean person, and therefore cleanliness does not entirely prevent its being contracted by our cleanest people. But the eruption is apt to be sparse and for this very reason we are apt to be misled in diagnosis. I find the involvement of the hands and wrists, especially the eruption between the fingers—generally looked upon as a most common occurrence in this disease—is entirely wanting in a large proportion of such patients, and when present at all, quite insignificant and easily overlooked. We can easily understand the reason for this if we reflect upon the fact that these patients wash the hands and wrists many times daily with soap and water, thus washing off the mites before they have time to penetrate the skin. In a family of nine people recently seen by me, all had the disease but only two out of the nine presented this classical feature of eruption on the hands. However, all of them showed the eruption on the body, especially over the abdomen. As the covered parts of the body are not subjected to this cleansing process so frequently the mite has a better opportunity to burrow and thus continue its work indefinitely, or until destroyed by local applications.

Half a century ago or more, Hebra observed that the favorite portion of the body for the development of scabies was the anterior portion from the nipples to the junction of the lower and middle third of the thigh. This still seems to be a correct observation, whether the eruption is thickly scattered or sparse. Practically all of the cases I see have it to a greater or less degree in this region. In males I find in a large majority of the cases the penis is involved. Another region generally involved is the forearm and flexor surface of the elbow. By speaking of these frequent sites of eruption, we do not mean to say that any part of the skin is entirely exempt. Even the scalp is infected in some cases—especially in babies. A few months ago I saw a baby whose scalp had been invaded by the *acarus scabiei*, and on account of its secondary infection produced impetiginous pustules and eczematous patches, until the original disease was pretty thoroughly masked. In such cases one may easily err in diagnosis. Aside from its distribution, the eruption in scabies varies greatly. This variation depends on the sensitiveness of the skin affected. The skin of one person reacts more violently, when subjected to the irritation produced by the parasite, than does that of another. Therefore we find more of an inflammatory process in one than in another. The essential lesion in this disease is the burrow, consisting of the punctate opening and the line indicating the direction the mite has tunnelled, stopping at the point it has reached. I find, however, that in most cases only the point of entrance is ap-

parent to ordinary observation. Only in places where the skin is thin and transparent can the line be easily followed. We find the irritation is generally sufficient to produce small papules or minute vesicles at the point of entrance. These we usually see in the early stages of the disease. Later they may be masked by secondary lesions caused by scratching, such as pustules, eczematous inflammations and scratch marks. In most of our cases we find evidences of the latter in the small blood crusts, caused by tearing off the top of small papules in the act of scratching. The presence of these small blood crusts is strongly suggestive of scabies.

A further destruction of surface epithelium and added infection from the pus cocci which happen to be on the skin, or under the finger nails, may result in pustules resembling impetigo. At times this feature becomes so prominent as to mislead; but if we examine carefully, we will find, besides the pustules, other characteristic features of scabies and some parts of the skin we will find free of pustules, but with the papules, vesicles and small blood crusts present.

Again, we may have, as a result of much scratching and rubbing, the development of an acute eczema with its attendant itching, inflammation, watery exudation and crusting. Hebra considered the whole inflammatory process in scabies eczematous, but this of which we speak is more than the inflammatory process aroused by the parasite alone. The whole surface of the skin in the patches so affected becomes swollen and weeping or crusting and the original disease is lost sight of—if we examine only these parts of the skin. Such cases emphasize my oft-repeated injunction to my students, “when you are diagnosing skin diseases examine all the skin or as nearly all as possible.” A case of my own about two years ago caused me to emphasize this more than ever before. A young man came to see me on account of an eruption on his forearm. He rolled up his sleeve and exhibited a typical eczema of this arm. It was so typical that I at once prescribed for his acute eczema and took his word for it that this was all of the trouble. The next time I saw him I took the pains to examine further and found his whole body covered with the characteristic lesions of scabies. Only the arm had become thus eczematous and was giving so much more discomfort than the rest of the skin that he did not observe the eruption over the trunk. By making it a rule to examine the skin extensively in all cases of skin diseases, we will many times avoid error in diagnosis.

In this disease the first consideration is diagnosis, for when that is made it is generally easy to accomplish a cure. In this task we must depend largely on the character of the eruption, for I have not found it so easy to secure the acarus for microscopic examination. It can be done, to be sure, but they are rather elusive and besides when we acquaint ourselves with the clinical features of the disease we can readily recognize it without the microscope.

As for treatment, I deem it superfluous in this short paper to speak of it, except in those cases complicated by acute eczema. In these cases I have found it necessary to first treat the acute condition until the highly inflamed condition subsides, after which the parasite destroyers can be successfully used. After the source of the trouble is destroyed the injured skin may also require some further treatment to bring it into a healthy condition again.

410 Rialto Building.

DISCUSSION.

Dr. John H. Duncan, St. Louis: I consider such papers very important to the general practitioner. My teaching is to endeavor to make the diagnosis, in all skin troubles, not so much from the history or from surrounding conditions, but if possible from the primary or initial lesion; and in the great majority of instances we can do that. We all know that in scabies the deep-seated vesicle is the primary lesion, which usually is on the hand, and may not be readily seen if few in number, as they do not rupture of themselves. I can understand how one may have an extensive scabies on the thighs or body and the hands be almost or perfectly free from eruption. I believe, however, that the medium of infection is through the hands and if we will stretch the skin and look carefully, we generally find a little sago-like elevation, and if we run a pin into it a little fluid will come out of it,—in short it is a vesicle. Then we may find the female acarus, or we may not find it; yet I believe that even in such cases we can get a history of deep-seated vesicles somewhere about the hands. Dr. Frick is correct in stating that we do get cases where there are no signs about the hands. Cleanly patients, who wash their hands frequently, keep down the infection on the hands. I agree that when a patient comes to us with a skin trouble, we should see as much of the body as possible. When the hips, genitalia, flexors (not the face or head) are involved, with the itching sensation and a multiform eruption, we have a group of signs all pointing to a case of scabies. A point of importance is the history of the case. Very often the dermatologist gets a patient from the family physician who writes that he knows it is not itch because sulphur won't cure it. Perhaps there are a number in the family and some of them are treated and cured while others are not even treated. The ones with scabies uncured reinfect those who have been cured and thus the disease runs indefinitely in that family and the family physician comes to the conclusion it is not scabies. The lesson is that all in the family must be cured at the same time.

Dr. J. P. Kanoky, Kansas City: You may have scabies on the body without any evidence of it on the hands I believe with Dr. Duncan that in the beginning of the disease the lesions were on the hand in 97 per cent. of the cases. When the disease is well pronounced on the body, it has existed for a number of weeks but by the use of soap and water on the hands the evidence of the disease has been eliminated from these parts. In the vast majority of cases I think the disease is carried by the hands to other parts of the body. Furthermore, it is necessary to thoroughly examine your case and not depend upon the evidence of one lesion brought before you. Recently a man was sent to me with the statement by his physician that he had measles. There was lachrymation, flushed face, etc.; he had been sent to the City Hall and the physician there pronounced it scabies. I found a small papular eruption, a hyperemic and sensitive cuticle; and a careful examination revealed pediculus pubis, the poison or toxins of which had

produced that intense irritation of the body. As soon as the parasites were destroyed the eruption disappeared. When an eruption of scabies is seen on the face and the body it is always in a case that has existed for a number of weeks; and this is equally true in the eczematous conditions. The deep-seated vesicle so well described as a "sago grain" is to my mind the first manifestation of scabies, and is almost invariably on the hand, or wrist.

Dr. Frick, in closing: I agree with the gentlemen discussing the paper that in the beginning of the eruption you will find the lesions on the hands, but we don't usually see the cases when the disease begins. There are first a few itch-mites on the hands and then a second or third generation scatters over the body. A large per cent. of our private cases do not have it on the hands at all when we see them. I find that most physicians, when they have a case of that kind, look for the lesions on the hands, so graphically described by Hebra, but in cleanly patients you rarely find it on the hands when treatment is applied for and that is why so many of these cases are diagnosed as something else.

(I)

THE RIGHTS AND OBLIGATIONS OF PHYSICIANS AND SURGEONS, UNDER THE LAW.*

(II)

MEDICAL JURISPRUDENCE THE LINK WHICH UNITES LAW AND MEDICINE.

(III)

AN APPRECIATION OF THE MEDICAL PROFESSION.

BY HON. B. B. CAHOON, SR., OF FREDERICKTOWN, MO.

In a practical way I wish to state (1) what is definitely settled, by the Courts, as to the legal rights and obligations of physicians and surgeons, (2) make some suggestions as to medical jurisprudence: the link which unites law and medicine, and (3) to express my appreciation of your profession.

(I)

The lawyer, who thanks heaven he knows nothing of medicine and the doctor who rejoices in his like ignorance of law, both exhibit stupidity and folly and make obvious their ignorance. Every physician needs to know much law; every lawyer, to conserve his vital powers and to try successfully medicolegal cases, needs to know a great deal of medicine.

In this country as well as in England (since the Medical Act of 21 and 21. Vict. C. 90) (1858) all regular physicians and surgeons can ordinarily sue for and recover for their services, and are liable for negligence in their practice. If they attend a patient, gratuitously, they are only liable to such patient for gross negligence, which is the want of and injuries arising from the neglect of ordinary care and diligence. As their duties relate to the preservation of human life it is gross negligence if the physician fail to give his gratuitous

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patron, in critical diseases or operations, the same attention a paid physician or surgeon would be expected to give.

Malpractice is the bad professional treatment of disease pregnancy or bodily injury from reprehensible neglect, ignorance, or carelessness, or the commission of acts, with criminal intent. In all actions for malpractice, the physician must be judged by the standard which he led the patient to believe he had attained. If he does nothing to mislead the patient, by making no representations, his responsibility will be measured by the degree of skill which he is proven to possess.

The law does not regard a physician as an insurer of a cure. Ordinarily he is not prevented from recovering for his services, whether the patient is cured or not. A physician, (and that, in this paper is meant to include also a surgeon) can, by agreement, undertake to perform a cure entirely or within a specified time. If he does not so perform it, he can not recover for his services. If there be no express contract to the contrary, the law construes a physician's employment to treat a case of disease, as implying an agreement on his part, to treat it with reasonable diligence and skill. If he does that on request of the patient, parent or master, the law awards him a reasonable compensation for his services, and nothing need be said as to such compensation. The general rule of a physician's legal liability is this: If he attends for, or in expectation of, a fee, he is liable for such want of ordinary care, diligence or skill on his part, as leads *directly* to the injury of the patient. To subject him to liability even in a civil action, for damages for negligence, or want of due care or skill, it is not enough, that there has been a less degree of skill than other medical men might have shown, or a less degree of care than even the physician himself might have bestowed; nor is it enough, to render him, so liable, that he acknowledged some degree of want of care. There must, to fasten the liability, for damages, upon him, have been a want of competent or ordinary care and skill, and the lack of both to such a degree *as to have led to a bad result*. Ordinary care is "that degree of care which persons of ordinary care and prudence are accustomed to use and employ under the same or similar circumstances, in order to conduct the enterprise in which they are engaged, to a safe and successful termination, having due regard to the rights of others and the objects to be accomplished." 8 Ohio 570.

Nevertheless, a physician or surgeon is bound not only to use such skill as he has, but to have a reasonable degree of skill and learning. He must exert his best judgment to bring about a good result. He is further bound to use the ordinary care, and skill and judgment of members of his profession as taught in his school, in detecting the nature of the patient's complaint as well as his treatment of it.

The Supreme Court of Missouri in the late case (1905) of *Logan v. Field*, 192 Mo., Reports 54, approval a series of instructions given

the jury for the defendant, patient, by the trial Court, in a suit by a physician for fees, wherein he claimed \$160.00 and finally recovered \$50.00, and thereupon appealed the case to the Supreme Court. The principles covered by the instructions are:

1. A physician may pursue a particular course of treatment and charge therefore, as long as he has reasonable cause to believe the disease of the patient will yield to the treatment and this without regard to whether the patient is or is not cured or benefitted by such treatment.

2. The physician has not unlimited discretion to serve his patient and to charge therefor. The treatment and charge are subject to these rules:

3. The patient has a right to expect good faith from the physician; also to rely upon the supposed superior knowledge of the doctor, to discover, determine and advise, what course should be pursued in his case.

4. A physician can not recover for worthless treatment, if he knew or ought, as a reasonably competent and prudent member of his profession, to have known of the uncertainty of a cure, and the patient went for and received such treatment because encouraged by the physician to receive the same or because the physician failed to inform him of the uncertainty of the treatment.

5. In accepting a patient, the physician in effect says, that he possesses and will exercise reasonable skill and judgment to discover the trouble of the patient and whether it is curable.

6. If a physician is conscious of his inability to understand or properly treat the patient's trouble, he should at once inform the patient thereof; concealment by the physician of his ignorance in performing unbeneficial service, is a fraud for which service the physician is not entitled to any compensation.

7. If the failure of a physician to discover and cure the trouble of his patient, is because the physician does not possess reasonable skill or because he does not exercise such skill, he is not entitled to any pay for his services.

8. The law does not permit a physician to recover for worthless professional services, even though the physician does not guaranty a cure, if such services are negligent, unskillful or unfaithful.

9. If a physician informs a person presenting himself for treatment that his disease or injury is curable when he knows it is incurable, or has no knowledge whether his representation is true or false, and thereby induces such person to undergo a course of treatment, such facts will render a physician liable in an action for deceit and will constitute a defense to his action for fees.

The law recognizes a varying standard of professional skill among physicians according to the circumstances surrounding them.

That standard may be different in the same state, or even in the same county. For instance, in country towns and in unsettled portions of the country, remote from the cities, physicians though well versed in theory, are rarely called upon to perform difficult and intricate operations in surgery, and therefore do not enjoy the greater opportunities for daily observation and practice, which large cities afford. It would be unreasonable and the law does not expect, from one in such circumstances, that high degree of skill, which an extensive and constant practice in hospitals and large cities, would imply a physician, thus surrounded, to be possessed of. A physician, though inexperienced and unlearned, may, in some circumstances, undertake a difficult case or operation, and in such case he is bound only to use the best skill he has, for the law sensibly recognizes, that many persons would be left to die, if country physicians were not allowed to undertake such intricate and difficult cases or cases in surgery. Notwithstanding this rule, if a person not of medical education, where professional aid can be had in time, undertakes an operation, or administers medicine which has a dangerous effect, and thereby occasions death, such person is guilty of manslaughter.

No particular system affords an exclusive test of skill, and homeopathic physicians stand upon an equality before the law with allopathic physicians. But one who professes to adhere to a particular school, must come up to its average standard of qualifications and skill, and is, by the law, judged by its tests and in the light of the acquirements of his school at the present day. Hence this is the law:—A physician who would now practice the reckless and indiscriminate bleeding, which was in high repute sixty years ago, or shut up a patient in fever and deny all cooling drinks, would find the old practice no excuse for his imbecility. No profession has made greater advances for the better than yours.

If a professional homeopathist, should violate the canons of homeopathy, he would be bound to show some very good reasons for his conduct, if it was attended with injurious effects.

Such a case came up in my legal practice thirty years ago. A homeopathic physician prescribed for the wife of my client, five drops, several times a day, of Fowler's solution of arsenic, continuously for three consecutive months. Her system became permeated with the poison and she lingered, as did the murdered man Cobb of New England over twenty-five years ago, and died shortly after the homeopathic physicians services were dispensed with. The physicians sued my client, the husband of the woman, for his services. The defense was that the treatment was not only in defiance of the rules of his school, which reprobates the administration of Fowler's solution of arsenic in doses of five drops, continued uninterruptedly, for more than thirty days, but that as the treatment being so grossly

negligent as to cause death, not only was the homeopathic physician not entitled to recover therefor, but was liable to the husband in an action for damages for the malpractice in the unnecessarily killing of the wife.

With the foregoing facts and by the depositions of homeopathic physicians of St. Louis, to sustain our theory, as to the malpractice and with the solution, analyzed by the then Professor Chauvenet of St. Louis and the result, in metallic arsenic, displayed on porcelain disks, at the trial of the case, it is scarcely necessary to say that physician did not recover his professional bill. He, however, was one who in that case, at least, was taught the importance of knowing some law applicable to his professional obligations to his patients. Anticipating its application in other legal proceedings he speedily left our state.

The state of health of the patient may have much weight in determining whether ordinary care and diligence have been used by the attending physician. What might be deemed ordinary care in some circumstances, would be gross negligence in others. A disease known to be rapid and dangerous, will, under the law, require more instant and careful attention and application of remedies than one comparatively harmless and requiring only good nursing.

So, beyond the manipulation of a fractured limb, a surgeon has often to contend with very many powerful and hidden influences, such as the habits, hereditary tendencies, vital force, mental state and local circumstances of the patient. These will often explain his ill success. Yet he is bound to inform himself of these facts, so far as they would likely influence, in the management of the case, the prudent physician. For example, a physician about to administer an anesthetic, is bound to inform himself as to the condition of the patient's heart, lungs or other organs, which if diseased, would warn a prudent physician against the administration of that beneficent agent.

A physician is not answerable for the errors of an enlightened judgment; but he is not permitted to interpose his judgment contrary to that which is settled in his profession. He can not attempt experiments; is bound to know the natural and probable results of the remedies he employs; must apply without mistake, what is settled by, and must keep within recognized and approved methods as taught by the experience and learning of his school. It must not, however, be forgotten that it is the duty of the patient to co-operate with his physician, and to conform to his proper and necessary prescription, but if he will not, or under the pressure of pain, can not, his neglect is his own doing or misfortune, for which he has no remedy at law, to hold his physician responsible.

The particular nature of the services which a medical man undertakes to render, often makes it his duty to continue them long after

he would gladly cease to do so. He may decline, absolutely, when called upon, to take charge of a case; but having once begun the task, he can not abandon it as freely. Even if his services are gratuitous, he must continue them until reasonable time has been given to procure other attendance; and if he is not attending gratuitously, he has no right to desert a patient, without a reasonable cause, before the end of the illness which he undertakes to treat.

Neither the querulous, peevish or ungrateful complaints nor the irritable, adverse criticism, by a seriously ill patient, afford any legal excuse, on the part of the physician, for abandoning such patient nor will they, all combined, release him from damages if injurious results follow his abandonment of such patient, without notice to him in time to enable him to procure another physician.

The law does not countenance quackery. Although it does not require the most thorough education or the largest experience, the medical profession, under the most favorable circumstances affords, yet it does require, that an uneducated, ignorant man, shall not, under the pretense of being a well qualified physician, attempt recklessly and blindly to administer medicines or perform surgical operations.

Damages (\$7,500 in the case of Longan V. Weltmer 180 Mo. Reports 322) were recovered and the recovery was sustained, by the Supreme Court of Missouri, for unskillful treatment by an alleged magnetic healer of a patient. It was held, it was not necessary the injured party should show the treatment was not proper in magnetic healing. One holding himself out, as such magnetic healer, must be held to the duty of reasonable skill, in the exercise of his vocation. Failing in that, he is liable for any damages proximately caused by unskillful treatment of his patient. Persons who hold themselves out and accept employment, as experts, in any profession art or trade, are held responsible for the results of their work therein. If he does the best he can, yet his work is unskillfully done, he is liable. He takes the risk. A healer of diseases, who relies for diagnosis and remedies of disease, on occult influences, exerted by magnetic healers or on some mental intuition, received by him, when in an abnormal condition, takes the risk of the accuracy thereof and is liable for the consequences if ill results follow and he fails to treat the patient with reasonable skill.

Malpractice is proven and damages are recoverable by a patient, where the condition was wrongly diagnosed as dislocation of the hip, and he was treated for it, after osteopath method of manipulating the hip to its socket, and thereby suffered a shortening of the leg and curvature of the spine, although the patient in fact was suffering from incipient hip disease, which would, without proper treatment, have developed into the permanent shortening of the leg and curvature of the spine. (Grainger vs. Still, 187 Mo. 197).

If osteopaths teach the same text books as other schools of med-

icine, physicians of such other schools are competent to express an opinion as to the correctness of the diagnosis and treatment of disease by an osteopath. If he has no fixed rule, for instance, of disease of the hip, to which all osteopaths must adhere, he belongs to no school of medicine and other practitioners, who belong to other schools that follow fixed rules of practice, can testify to the correctness of a diagnosis and treatment of any case of alleged malpractice, as for instance, alleged hip disease by an osteopath. (Ibid. 187 Mo. 197).

A person not qualified, as not being a regular medical practitioner, but assuming to be or to practice as such and undertaking to treat another for a disease, is liable for an injury caused by ignorant and improper treatment by which the patient is rendered worse instead of better and is injured by the use of improper medicines he administers. If however, such irregular practitioner frankly informs the patient of his want of skill, or the patient is in some way fully aware of it, the patient can not complain or take advantage of the lack of that which he knew did not exist. Nevertheless, if death ensue, from such irregular and grossly ignorant and culpably negligent treatment by such irregular practitioner, in Missouri, the offense is manslaughter in the fourth degree, the punishment of which may be by imprisonment in the penitentiary for two years or by imprisonment in the county jail not less than six months or by a fine not less than five hundred dollars, or by both a fine not less than one hundred dollars and imprisonment in the county jail not less than three months. (R. S. Mo. 1899 Sec. 1835). But unskillful treatment in the case of sudden emergency by one not a physician if death ensue is not manslaughter. Such irregular practice of medicine, without a certificate of the State Board of Health, as to qualifications, to do so, on the part of any one, is, now except, in an emergency when regular and qualified practitioners are not attainable, the subject of criminal penalties, though in former times it was not, beyond punishment for manslaughter if death resulted from such malpractice. The medical examiner statutes and those requiring reports of births, deaths, and contagious diseases, are constitutional, as are like statutes requiring physicians to comply with requirements as to prescribing opium, morphine, cocaine, whiskey and other enumerated drugs. No recovery for professional services can be had unless the medical examiner statutes are complied with. They also likewise apply as a rule to citizens living in other states, and they prohibit from practicing, unless expressly excepted therein, an unlicensed person undertaking to practice medicine or surgery under the direction and charge of a licensed physician, but they usually do not apply to Christian Science or the treatment of disease by "metaphysical" methods.

However, the Supreme Court of Texas has lately decided a novel case which, as to compensation for injuries radically reaches

Christian Science believers. A female Christian Scientist sued a railroad company for damages claimed to have been received by being expelled from a car. She alleged, as elements of such damages, mental and physical suffering, and recovered therefor, in the trial court. In that court, the defendant offered to prove (but the court excluded it) that plaintiff was a Christian Scientist; that she would not take medicine to alleviate any alleged pain; that she believed, through her religious cult she had attained an exalted spiritual existence, in which she lived above and free from all mental and physical pain and suffering; that to her, there was no such things as either; that so-called pain and suffering are not facts, but vagaries of people who permitted themselves to think and to believe either; that with her, it was not a question of actual mental or physical pain but only a question of thought, which by her cult she could and did control and did thereby exclude all sensation of physical pain or mental anguish and consequently had neither, was in no sense injured, and such being the case, she had no legal action for actual damages. On appeal, the Supreme Court, reversed the judgment of the trial court, holding it was error not to permit defendant to introduce the offered testimony since it was pertinent to the main and essential inquiry and issue in the case, viz:—the alleged mental and physical suffering of plaintiff. Such ruling is logical, in this; mental and physical pain are sensations from causes. If there be neither, there has been no injury, and no damages; hence one who in religion holds to such a cult, in law, is bound by what he religiously teaches and preaches.

Another step in the same direction has been taken in Delaware, by the enactment of a recent law which prohibits Christian Science practitioners whose healing method is by prayer, from charging or receiving any compensation, gift or reward for or on account of their practice.

While, as later on stated, imagination and faith aid greatly in curing certain diseases, we know that however created, disease, pain and suffering are facts, and that they are not always as Christian Scientists claim, "the result of the carnal mind and represent only human error, ignorance, superstition, sin and erroneous and perverted beliefs," nor is it true as they further claim, that by means of Christian Science its devotees "have been delivered from *every form of disease*, * * * and misery," simply because we see them, like ordinary people, sicken, suffer and die. We know their claim to cure by prayer, malignant cancer and other affections which have never been cured in the history of the race, is stretching the power of faith and imagination to the breaking point. We know that when the wisest, most sinless and healthiest man, starts, wrapped up and well, to go a twenty mile over-land journey and encounters an unexpected blizzard, takes cold, has pneumonia and dies, that result was not of the

"carnal mind," but was the result of the blows of the elements which were too strong for him to overcome. We know the air and drinking water often become inoculated with disease germs which man inhales or swallows, and cholera, typhoid, malarial and yellow fever result with illness and death because the germs are stronger than man's strength to resist their assaults. They too are not results of "the carnal mind," not the product of "imaginary diseases," but are sad realities which usually no amount of prayer heal, but which faith and confidence mixed with the wise administration of medicine often to heal. We know that if Mrs. Eddy breaks her arm or limb only good setting of either, with pain and time, not, *alone* prayer, will heal it. In any event, we submit that those who practice Christian Science based *solely*, as is their practice, on prayer would do well to better prove their sincerity, than to charge for, accept or receive compensation and gifts for such prayer treatment, and we approve such legislations as the Delaware Statute.

The standard measuring the amount of a physician's compensation are these:—his learning, his skill, the nature and difficulty and the duration of the case, the number and frequency of his visits, of which he is usually the sole and proper judge, and the attention, care and zeal he has applied to the case. The pecuniary condition of the patient (save in Louisiana where the contrary has been held) is not in law, to be considered as a guide in fixing such compensation. In practice among you I imagine the rule is and should be different, in this: your charge against the rich patient is usually greater than against the poor; in short, is to and it does somewhat reimburse you for your charity practice, which in poor communities is often large. The latter practice no self-respecting physician can or will ignore. However physicians should not allow themselves, as is often the case, to be imposed on on the plea of charity. Patients able to do so should because the service is rendered them when helpless, pay first, physician fees, just as our probate law after death makes such charges a preferred class of debts against the estate of the deceased, because no one *in extremis* should be without medical aid.

(II).

Medical jurisprudence or forensic medicine is law applied to medicine. It embraces the heights of the two sciences. It is that science which applies to the elucidation of doubtful questions in courts of justice, wherein medicine and law are blended. A science is so called because it is never fully acquired. If we reach the highest realm of knowledge, by intensest, study and observation, and measurably know ourselves, it is only to realize how little we do know. To succeed in but a little we must aspire to much, for in great attempts, "'tis glorious e'en to fail." We are tested not by our perfections, for they are not the lot of man, but by our success in overcoming our imperfections.

Medical jurisprudence is by no means a fully developed science. It is growing constantly. It needs larger development. Statutes which comprise one part of our jurisprudence and are the work of legislatures, do not afford rules for the adjustment of more than half the legal concerns of mankind. We seek the unwritten law found in text books and reports of decisions for the rules of the common law and equity, to settle most contentions involving our lives, our persons, our fortunes, our liberties and our honor. All law is based on the needs and situation of the people. Its origin is the will of the people, based on such needs and on long established customs growing out of them.

If a question involves medico-legal attributes, the enlightened judgment of both professions only can solve it. As the two professions advance in learning, that advance sooner or later, is reflected by the rules courts adopt in medical jurisprudence. Comprehension of the true facts of the case and their solution of that case, and their application to the needs of the people and to civilization, are, in matters medico-legal, medical jurisprudence. Occasionally the law does not adopt, to their full extent, the last and best attainments of medical science, for the law is ultra conservative. Yet in time, it, by the needs of humanity reaches and adopts the last and best results of medical research. Thereby physicians engraft medicine upon law.

Originally, before a party could be acquitted of a crime, on the plea of insanity, the test in law of such insanity was this:—at the time of the commission of the offense, did the accused have the ability to know the difference between moral good and evil, or in short, between right and wrong?

Alienists of your profession now hold that is not the only test to determine the existence of insanity; nevertheless, it was your original test and the courts adopted it from you. Later and larger study and treatment of insanity, by learned physicians, discovered and declared, that test was too narrow and too rigid; that a man might know the right from the wrong and be so insane as to be impelled, irresistibly from a diseased brain to do the wrong and not possess the strength of will to resist doing it. Many insane men have been hung by the law circumscribing the test to the old rule of right and wrong. But the ceaseless researches and larger practice in insanity cases of physicians in a great measure has mitigated, if they did not in the Courts of many of the States, entirely eliminate the old rule, so that it is modified greatly by the addition of these other legal tests:—did he comprehend clearly the nature, character and consequences of his act? Was it the act of a rational or an insane person? Was he so irresistibly impelled to the commission of the act by an insane impulse that he had not the ability to resist that impulse, to control his action and to choose between right and wrong? Medicine asks the one question:—was the defendant's mind essentially impaired as to the reasoning faculties, or incapacitated from understanding and acting with

discretion in the ordinary affairs of life? If so he was medically insane.

Legal insanity, as we shall see, is quite different from that. In the Thaw case the instructions of the trial court limited insanity in law according to the code of New York which is practically the same as the law in Missouri. I consider the Thaw case badly tried, inasmuch as his counsel sought to prove he is not now, as the State was ready to concede, insane, and limited the insanity to just before, at the time and immediately after the homicide. Such defense that does not show consistent and long continued change of former character is open to suspicion.

Insanity is a disease of the brain, often superinduced through disordered functions of the body. It may exist in various degrees. Its causes are innumerable. In discovering its absence or its existence no single isolated fact is conclusive, but it must be diagnosed by rules, the result of which are the researches of modern medical science. So, in the application of such rules, to cases at law, where insanity is the issue, all facts and circumstances pertaining to the condition, conduct and circumstances of the accused, contribute to determine the question of his insanity as do exciting causes and his hereditary tendencies. If such cases were accompanied by well defined delusions leading to the fatal act, and so connected with the crime and the insanity as to show that but for the existence of such insanity the homicide would not have been committed, and that the delusion believed by the defendant to be true had no existence in fact, but he was led to believe it and under the influence thereof believed he had a right to do the act he did and that thus the act was the result of his insanity, the task of alienists and courts in reaching just conclusions in insanity cases, as to the insanity of the accused, would be easy. But such cases are usually more complex than that, in that, they usually involve some antecedent difficulty, which, mixed, with some elements of insanity, indicate the act was in spite of the existence of delusion, more the result of revenge than because of an insane condition of the slayer. So the Courts hold "that unless the defendant, was, by his insanity on the subject of the delusion, deprived of the mental power of drawing the proper conclusions in regard to the facts; in other words, deprived, by his insanity, of the power of knowing that the facts did not authorize the taking of life, his delusion upon the subject of the injuries can form no excuse for his act." (*Baldwin vs. State* 12 Mo. 223). Those quoted words have been the law in Missouri on the subject of insanity wherein alleged delusions are shown, since it was so declared in 1848. That old *Baldwin* case has repeatedly of late years been re-affirmed. (*State vs. Schaeffer*. 116 Mo. loc. cit. 112; *State vs. Williamson* 106 Mo. loc. cit. 173).

In the last cited case the Supreme Court said: "Whether the Courts in dealing with this subject have kept pace with the scientific

world and the humanity of the age, may well be questioned; but so far, it seems to us, this Court has adopted the only rule by which society at large can be protected.

We see no reason for overturning a well settled rule and attempting to follow the *ignis fatuus*, "incontrollable impulse." We might as well announce there would be no more prosecutions for homicide. Nevertheless, in such cases the jury is not required to believe beyond a reasonable doubt the defendant is sane in order to acquit, though the law presumes he is, and the burden is on him to prove he is not. The defense of insanity is established, when the evidence offered in support of it preponderates in favor of the fact and reasonably satisfies the jury that it existed at the time the criminal act charged was committed." (State v. Redemeir 71 Mo. 173). Men acquitted in cases wherein juries apply the "unwritten law" are not by them believed to be consistently insane. Juries acquit in such cases because they feel the defendant was morally justified in the swift killing of the seducer of a wife or daughter, in the act or immediately on the discovery of the seduction. They will not so acquit for a homicide committed long after such discovery, because in such cases, all shadow of "irresistible impulse" or "brain storm" pretexts for the homicide are absent. When a man long knows of such alleged seduction and then kills, the presumption is very strong it is premeditated murder solely for revenge. You need not be told it is a maxim of the law that it rewards the diligent and punishes the slothful.

The ordinary lawyer who makes no study of the learning of your profession, can not properly try cases involving medical questions. What does such a lawyer know of insanity, toxicology, epilepsy, palsy, botany, chemistry, anatomy, senility, idiocy, the nervous system, the brain and spinal cord and the nerves emanating from each, the circulatory or muscular system, the heart, stomach, liver, lungs or other viscera? He knows nothing of them. Even most learned lawyers must depend upon your profession for aid in the careful trial of cases involving any question of medical jurisprudence.

Medical jurisprudence is a question of evidence in court, determined by recourse to medical knowledge, through medical experts who may not only state medical facts as observed by them, but express opinions on the medical facts given in evidence in the case. Such opinions in many cases are entitled to great consideration; in others to little. They are worth in proportion to the skill and character of the physician giving the opinions, but juries are not bound by them but may give them such weight they deem such opinions entitled to. If they deem them unreasonable they may altogether disregard them. Medical books, by the weight of authority, are inadmissible to show what medical writers say, but parts of human skeletons and surgical instruments are admissible. To undertake to state all or even many of the cases in which medical experts have testified would roam over

the greater part of law and medicine and would exceed your patience. Like ordinary witnesses experts can in the administration of justice and in the absence of a statute to the contrary, be compelled to testify, especially if already on the stand for any purposes of the case, without any other compensation than the small per diem and mileage of ordinary witnesses, paid by the State, with rare exceptions fixed by Statutes, as in New York and California; but he can not be compelled to make special preparation to give expert testimony. But there are respectable authorities which hold a party calling a witness as an expert is liable for his services. However the usual practice is there must be a mutual understanding between the witness and the party so calling the expert before compensation by the latter can be recovered.

If the expert's character, learning and skill are high and his experience great, everything valuable in life, indeed life itself may often depend on his opinion. Therefore he has no right to give any other opinion in a law case, than that which is strictly within the scope of his scientific investigation. Thus grounded he should stoutly maintain it and give all reasons he can to prove he is right. A false or ignorant opinion in such cases, from a physician, is fearful to contemplate. Instead, for instance, of giving an opinion, that poison or wounds *did in fact produce* death, unless the fact is absolutely plain and conclusive, it is better the expert declare, that they, in his opinion, were sufficient to cause death, leaving the responsibility with the jury and not with the physician to find, if death was so produced. One cause of death may exist with another at the same time; for instance, arsenic sufficient to produce death is detected in the stomach of the deceased, yet the post mortem discloses the individual died of apoplexy. Remember to avoid in testifying as experts the use of technical or latin terms. Denominate things by the words the jury and the court know. Do not describe them through your professional vocabulary.

(III.)

The tri-une sciences, Theology, Law and Medicine, may not, in importance be greater than the others—Agriculture, Mining, the Mechanic Arts, Chemistry and Commerce, but they touch every citizen. The seven make his environment and each contributes to his well being. Theology is man's spiritual guide and promises him immortality, if he obeys its teachings. The Great Physician—Christ the healer—is our ideal of the true physician. Because his practice was restorative and so full of loving unselfishness, we hold closer to our hearts the faithful physician who exhausts his remedies and often himself, to restore us to health, than we do other men, unless it be the clergymen whose life is closest to Christ's example.

We should compensate, (for on the whole, your work, is poorest paid of all the learned professions), but we can not respect too highly the physician whose practice follows our ideal of the true physician.

As you do that, you are better than you dream. Some of you, I trust all of you, are successful, because to you, known or unknown, you so long to relieve your patients and so deeply sympathize with them, that, thereby, you are able to diagnose and to treat diseases successfully, as much by inspiring your patients with confidence in your skill and in your devotion to them, as by your prescriptions. The physician who does that has found his true vocation; failing in that he is not a full-fledged doctor. The influence of mental suggestion, of mind upon mind, and mind upon the body, are as truthful as they are wonderful. That such suggestion and influence work marvelous cures can not be denied. By both, in and out of your profession sick people are often restored to health. The faith they generate react on physician and patient, each aiding the other. Every physician has witnessed their good result and has realized his success and the patient's recovery have been as much their result as from medicines administered. So confidence in you, and in subtle but none the less mind healing by you, is a constant adjunct of your practice, be it resorted to consciously or unconsciously. Every physician so recognizes. We can no longer decry the wonderful things, on these lines, we witness. We know they exist and that they influence us greatly, for good or for ill. They are a part of God in man. Whosoever, in the sympathizing spirit, strives to aid another, to him shall not be denied somewhat of success, imperfect in many things though he may be. It is the good triumphing in us. Shakespeare was wide of the mark, in declaring the good in man dies, is interred with his bones, but the evil he does lives after him. The reverse is true; the good survives; the evil is neutralized and dies.

Who has not known a good country doctor like the late William Goff, of Fredericktown, equipped with sympathy for his patients and invoking all good and hopeful influences over them, while not learned in the modern sense, was through the foregoing virtues, coupled with his zeal for and attention to his patients, a most successful and greatly beloved physician? Who has not likewise known a good old unassuming backwoods physician like the late Doctor James M. Woods, of Wayne County, who, more learned and a deeply read student, applied the same virtues in his practice, and in critical cases left non-serious cases to bide their time, while he remained a whole day and night with the dangerously ill patient, applying his remedies, until the crisis had passed? Whose heart has not been drawn to such physicians? What parent who saw his family physician stay all night with his sick child, momentarily watching it and administering his remedies to meet the changing phases of its illness and not departing until a change for the better came, has not only been encouraged by such devotion but has been drawn to that faithful physician, by chains of gratitude only death can break? On the contrary, what but contempt, are the feelings of parents if, in illness, the physician's visit is

perfunctory and the child is left to chance and dies, without a correct diagnosis of, much less intelligent and sympathetic treatment, to stay its illness?

My conviction is, that the country doctor and lawyer, if equipped with great natural ability and adaptability for their professions and if enamored of them, and if studious therein, are the best. Because they are less distracted by society or extraneous things, they have more time to meditate and study than their professional brethren in large cities. Consequently they concentrate more thought on their work. In surgery that rule can not hold good. It is repeated operations that make a great surgeon. The view I have is confirmed when I know a country doctor who has restored to health nine members in one family all suffering from severe typhoid at the same time. Yet his fame is but local. As to the special diseases of our climate with which they are familiar and are often called to treat, many of our country doctors have successful records. Thirty years ago when spinal meningitis was epidemic in his section of Wayne County, the late Dr. James H. Webb, who afterward removed to Washington, never lost a case. The recoveries wrought by him were usually unaccompanied by ill aftermaths. If the three physicians I have named were met by ordinary denizens of a city on our highways, visiting their patients, so homespun were they in looks, speech, dress and in ways, that denizen would, did he know their mission, imagine it was malpractice on the part of patients to employ them.

I need not impress on this Society the importance of correct diagnosis and prompt treatment of disease at the outset, nor need I suggest that constant study, long practice, close observation and much knowledge of the patient, his surroundings, habits and his hereditary tendencies are essential to make a successful physician. What I do wish to impress on you, is the honor and the pleasure that is and has been mine, to appear before you and to contribute if I can and if I have done, to your pleasure and to your enlightenment and to express my appreciation of and encouragement to you and your profession.

MASTOIDITIS WITH PYURIA AND INTERMITTENT
HEART BEAT.*

BY J. S. WEVER, M. D., KANSAS CITY, MO.

C. D. N., age 65, pension office clerk, Topeka, Kan. Abscess started on the back of neck Jan. 20, 1907; was cut Jan. 29th, again Feb. 2 and again Feb. 13th. Went to Hospital in Topeka Feb. 24 and left there March 22nd. Has been deaf in *left* ear for the past forty years, probably the result of recurrent attacks of suppurative otitis media. Hears loud conversation close to ear on that side. In the *right* ear (operated side), had been no discharge up to time of neck abscess (carbuncle) although he had been a little deaf in that ear. No tubercular or specific history. Entered Soldier's Home at Leavenworth in 1889 with heart trouble and pyuria and edema marked from the hips down. Had no edema since then. Was passing only 20 ounces of urine when he entered the Home. Has not had frequent micturition to any extent.

There were no distinct ear symptoms until first day after he left Topeka Hospital, when the right ear seemed a little irritated and second day it began to discharge. March 26th, a Topeka physician saw him and advised irrigation which was kept up till I saw him April 8th. At this time the ear canal was swollen so as to preclude seeing drum and has remained swollen since. Carbuncle wounds had healed. Treatment internally was ovo-ferrin and after April 15th (when a microscopic examination showed pus in urine without casts and no sugar) urotropin. Locally inflation showed a drum perforation. Hydrogen dioxide was used with bichloride gauze drainage frequently changed.

For nineteen days there was no mastoid symptom other than the swelling of the ear canal. Then, on April 27th, he had pain referable to right ear, temperature 99.6, pulse about 80 but arrhythmic. April 29th, edema was marked and he was operated upon next morning April 30th at the German Hospital, with the assistance of Dr. Hyde and Dr. Andersson. Dr. Andersson administered morphine, gr. $\frac{1}{4}$, one-half hour before operation and gave ether with a Bennet Inhaler by the closed method, without gas as a preliminary. Patient went under without a cough or struggle. Ether used, 4 oz. Time administered 1 hour and 10 minutes. Dr. Andersson noted that the pulse, which had intermitted before, did not intermit during the anesthetic and patient recovered without vomiting and without shock. I am frank to say that I feared the anesthetic with this man's history and symptoms and I desire to commend heartily Dr. Andersson and his method of anesthesia. The patient's recovery has been uneventful. He left the Hospital May 22nd. There is some little discharge from the ear canal

*Case shown with report to Jackson County Medical Society, May 28, 1907.

but the mastoid wound is granulating and closing and hearing is improving in that ear. The operation done was a modified Schwartze, the antrum being curetted of its pus and broken down bone contents. Facial twitching was noted on passing a bent probe in the upper forward angle.

This case was noteworthy on account of the following: (1) His age, 65; (2) arrhythmic heart and (3) pyuria extending back for 15 or 20 years and yet a smooth anesthesia and recovery without after effects; (4) it followed, if it was not the direct result of, an abscess on the back of the neck (carbuncle); (5) mastoiditis occurred on the side which had *not* previously had recurrent otitis media.

To satisfy myself in regard to the prevalence of mastoiditis in *elderly* people I have looked the subject up with the following results. Beyond saying that it is common in children these say nothing about the relative frequency: Tillman's Surgery, Dennis's Surgery, International Textbook of Surgery, Politzer, Am. Textbook of Eye, Ear, etc., McEwen's Pyogenic Diseases of Brain and Cord (1893) and Whiting's Modern Mastoid Operation (1905). Posey and Wright (1902) say "Occurs with about equal frequency in children and adults."

The oldest case operated on was 87 (Laryngoscope, July '04) by McCaw. This case followed acute otitis media and died in 48 hours.

Barek (Laryng., Nov., 1903) summarizes 100 of his own cases from 4 months to 63 years of which 42 were under 15.

Wells, (Laryng., May, 1905) quotes Schwarts's 100 cases which showed 61 less than 20 years old or sixty-one per cent. Also quotes Cordoro and Amadoni's 165 cases which showed the greatest number of cases between 10 and 20 and next greatest between 1 and 10 years of age.

Hubbard (Laryng., July, 1906) quotes four cases complicated with diabetes running from 45 to 65 years old. One was operated on and all recovered.

Bryant (*Journal Am. Med. Assn.*, Jan. 19, 1907) cites 25 cases recently operated on, of which 15 (60 per cent.) were under 20 years old and the oldest 56.

CONCLUSION: So far as occurrence of mastoiditis with *age* is concerned I believe the following table would not be very far wrong:

- 60 per cent. are less than 20 years old.
- 70 per cent. are less than 30 years old.
- 80 per cent. are less than 40 years old.
- 90 per cent. are less than 50 years old.
- 99 per cent. are less than 60 years old.

MISSOURI STATE "DAIRY" AND "FOOD AND DRUGS" ACTS, APPROVED MARCH 16, 1907.

As the new pure food laws enacted by the last legislature are of interest not only to the manufacturer, jobber, dealer and consumer, but also and still more so to the medical profession of this state, whose hearty and active co-operation was of inestimable value to us in securing the passage of the acts, the JOURNAL OF THE STATE MEDICAL ASSOCIATION, through which the organized medical profession of Missouri can be better reached than through any other medium, has kindly consented to publish the two acts in full together with a short commentary thereon.

The laws as approved by the Governor March 16, 1907, and which went into effect June 16, 1907, are as follows:

AN ACT

To prohibit the manufacture and sale of foods, drugs, medicines, beverages and liquors, as defined in this act, which are adulterated or misbranded within the meaning of this act; and prescribing penalties for violations thereof.

Be it enacted by the General Assembly of the State of Missouri, as follows:

Section 1. No person or persons, firm or association of persons, company or corporation shall, within this state, manufacture, produce, sell, offer or expose for sale, or have in his, their or its possession, with intent to sell, any article of food or drug which is adulterated or misbranded within the meaning of this act, or cause or procure the same to be done by others.

Sec. 2. The term "drug," as used in this act, shall include all medicines and preparations recognized in the United States Pharmacopœia or National Formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation or prevention of disease in man or animals. The term "food," as used in this act, shall include all articles used for food, drink, confectionery or condiment by man or animal, whether simple, mixed or compound.

Sec. 3. A drug shall be deemed to be adulterated within the meaning of this act: 1. If, when sold under or by a name recognized in the latest revised edition of the United States Pharmacopœia or National Formulary, it differs from the standard of strength, quality or purity prescribed therein. 2. If its strength, quality or purity fall below the professed standard under which it is sold: Provided, that no drug defined in the United States Pharmacopœia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality or purity be plainly stated upon the bottle, box or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopœia or National Formulary.

Sec. 4. Food shall be deemed to be adulterated: 1. If any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its strength, quality or purity. 2. If any substance or substances have been substituted wholly or in part for the article. 3. If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it. 4. If it is mixed, colored, coated, polished; powdered or stained in a manner whereby damage or inferiority is concealed; or if, by any means, it is made to appear to be better or of greater value than it really is. 5. If it contain any added substance which is poisonous or injurious to health: Provided, that when in the preparation of food products for shipment they are preserved by any external application, applied in such a manner that the preservative is necessarily removed mechanically or by maceration in water or otherwise, and directions for the removal of said preservative shall be printed on the covering of the package, the provisions of this act shall be construed as applying only when said products are ready for consumption. 6. If it consists wholly, or in part, of a diseased, filthy, decomposed, putrid, infected, tainted or rotten animal or vegetable substance, or any part or portion of an animal diseased or otherwise unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or of an animal that has died other-

wise than by slaughter, and in case of meats, oysters or fish, sold or offered for sale in the fresh state, if such meats, oysters or fish shall have been inoculated, dusted, powdered, sprayed, rubbed, annointed, washed, sprinkled, fumigated, or in any other manner treated with any of the substances declared deleterious or dangerous by this act, or any antiseptic or chemical preservative or dye stuff whatsoever, whose use and apparent purpose is to mask decomposition, or to give to the meat, oysters or fish a false appearance of freshness or quality. And in the case of dairy products, if any such product be drawn or produced from cows fed on unhealthy or unwholesome food, or on waste, slops, refuse, leavings or residue of any nature or kind from distilleries, breweries or vinegar factories, or on food in a state of putrefaction, or from cows diseased in any way. 7. If it contains methyl or wood alcohol in any of its forms. 8. If it be an imitation of or sold as or for another article. 9. If, in the case of confectionery, it contains terra alba, barytes, arsenic, tale, chrome yellow or other mineral substances, a poisonous color or flavor, or other ingredients deleterious or detrimental to health, or vinous, malt or spirituous liquor or narcotic drug; or 10. If it does not conform to the standard of strength, quality and purity now or hereafter to be established by the United States department of agriculture.

Sec. 5. The term "misbranded," as used in this act, shall apply to all drugs and articles of food, or articles which enter into the composition of drugs or food, the package or label of which shall bear any statement, design or device regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any food or drug product which is falsely branded as to state, territory or country, in which it is made, manufactured, produced or grown, or as to the person, firm or corporation by whom it is made, manufactured, produced or grown.

Sec. 6. In the case of drugs an article shall also be deemed to be misbranded: 1. If it be an imitation of, or offered for sale under the name of, another article. 2. If the contents of the package, as originally put up, shall have been removed in whole, or in part, and other contents shall have been placed in such package. 3. If the package fail to bear a statement on the label of the quantity or proportion of any alcohol, morphine, opium, heroin, cocaine, eucaine (alpha or beta), chloroform, cannabis indica, chloral hyable by a fine not exceeding fifty (\$50) dollars for the first offense, and not drate, acetanilid, or any derivative or preparation of any such substance contained therein: Provided, that subdivision 3 of this section shall not apply to any drug prepared and sold on the prescription of a duly licensed physician, or prepared by a duly licensed pharmacist for immediate sale upon an order therefor.

Sec. 7. In the case of food, as herein defined, an article shall also be deemed to be misbranded: 1. If it is an imitation of, or is offered for sale under the distinctive name of another article. 2. If it be labeled or branded, tagged, stenciled or marked so as to deceive the purchaser, or purport to be a foreign product when not so. 3. If the contents of the package, as originally put up, shall have been removed in whole, or in part, and other contents shall have been placed in such package. 4. If it fail to bear a statement on the label of the quantity or proportion of any morphine, opium, heroin, cocaine, eucaine (alpha or beta), chloroform, cannabis, indica, chloral hydrate, acetanilid, or any derivative or preparation of any such substances contained therein. 5. If, in package form, and the contents are stated in terms of weight and measure, they are not plainly and correctly stated on the outside of the package. 6. If the package containing it, or its label, shall bear any statement, design or device regarding the ingredients or the substances contained therein, which statement, device or design shall be false or misleading in any particular: Provided, that an article of food which does not contain any added poisonous or deleterious ingredient shall not be deemed misbranded in the following cases, viz.: (1) In the case of mixtures or compounds which may now, or from time to time hereafter be known as articles of food under their own distinctive names and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the factory or place where said article has been manufactured or produced; (2) in the case of articles labeled, branded, stenciled or tagged so as to plainly indicate that they are mixtures, compounds, imitations or blends, and the word "mixture," "compound," "imitation," or "blend," as the case may be, is plainly stated on the package or container in which they are offered for sale: Provided, that

the term "blend" as used herein shall be construed to be a mixture of like substances; not excluding harmless coloring and flavoring ingredients used for the purpose of coloring and flavoring only; and, provided further, that nothing in this act shall be construed as requiring or compelling manufacturers of proprietary foods, which contain no unwholesome ingredient, or substance added to increase the bulk or weight of the finished product, to disclose their trade formulas, except in so far as the provisions of his act may require, to secure freedom from adulteration or misbranding.

Sec. 8. If a statement of any of the ingredients of an article of food or drink, or of an article entering into food or drink, is required by law to be stated upon the label or package of such article, or is stated upon the label of such article, whether required by law or not, such statement and the name and address of the manufacturer or vendor of the article shall be distinctly and conspicuously printed on the label or package in straight parallel lines of plain, uncondensed legible type, well spaced on a plain ground. The statement of ingredients shall be clearly separated from and not interspersed or confused with other matter, shall specify each and every ingredient by its ordinary name and shall be in the English language. The letters of said type shall be as large as any printed matter on the label or package (except the name of the compound, or chief article named herein, which may be in larger type), and shall not be smaller than 8-point Gothic caps: Provided, that in case the size of the package does not allow the use of type of such size, then the size may, with the approval of the dairy and food commissioner, be proportionately reduced. The required label shall be firmly attached to or printed on the exterior of the package or envelope of the said article, on the top or side thereof, and in plain sight; but the dairy and food commissioner may, in writing, approve specific labels not strictly in accordance with the above provisions if it is his opinion that the information is set forth thereon clearly enough for the reasonable protection of the purchaser.

Sec. 9. Drugs, or foods labeled in violation of the provisions of sections 5, 3, 7 and 8 shall be deemed to be misbranded within the meaning of this act.

Sec. 10. No person, firm, association of persons or corporation shall deface, erase or remove any label or mark provided for in this act with intent to mislead, deceive, or violate any of the provisions of this act, nor cause the same to be done by others.

Sec. 11. Every person, firm, association of persons or corporation manufacturing, offering or exposing for sale, or delivering to a purchaser, any drug or article of food included in the provisions of this act, upon application of any person or an inspector, analyst or other officer or agent of the state, and tender to such person, firm, association or corporation of the value thereof, shall furnish a sample for analysis of any such drug or article of food which is so in his or their possession.

Sec. 12. No dealer shall be prosecuted under the provisions of this act when he can establish a guaranty, as provided for in the national food and drug act approved June 30, 1906, or a guaranty, signed by the wholesaler, jobber, manufacturer or other party, residing in the state of Missouri, or who shall have filed in the office of the dairy and food commissioner a designation of the name and residence of some competent person being and continuing a resident of this state, process served on whom shall be valid and acceptable as personally served upon such party in any suit or proceeding under this act, from whom he purchased such articles, to the effect that the same are not adulterated or misbranded in the original unbroken packages, within the meaning of this act. Said guaranty, to afford protection, shall contain the name and address of the party or parties making the sale of such articles to such dealer, and in such case said party or parties shall be amenable to the prosecutions, fines and other penalties which would attach, in due course, to the dealer under the provisions of this act.

Sec. 13. When construing and enforcing the provisions of this act, the act, omission or failure of any officer, agent or other person acting for or employed by any person, corporation, firm or association, within the scope of his employment or office, shall, in every case, be deemed to also be the act, omission or failure of such employer.

Sec. 14. Any person, firm, association or corporation who shall within this state, manufacture or produce, offer or expose for sale, or shall sell or deliver, or have in his or their possession with intent to sell, any drug or food, as defined in this act, which is adulterated or misbranded within the meaning of this act, or who shall fail or refuse, upon the application of a proper person, and the tender to him of the value thereof, to deliver to such

person a sample, sufficient for analysis, of any drug or article of food in his or their possession, as required by this act, or who shall violate any of the provisions of this act, shall be guilty of a misdemeanor, and upon conviction thereof, be punished for every such offense by a fine not less than ten dollars nor more than five hundred dollars, or by imprisonment in the county jail not to exceed six months, or both such fine and imprisonment, and shall, in addition, be adjudged to pay all costs and expenses incurred in inspecting and analyzing such food or drug. All fines recovered under the provisions of this act shall be paid to the state treasurer.

Sec. 15. All acts and parts of acts inconsistent with this act are hereby repealed.

AN ACT

To amend an act entitled "An act to create the office of state dairy commissioner, and to define his term of service, duties, and powers," approved April 8, 1905, by repealing sections 1 and 2, and enacting three new sections in lieu thereof, to be known as sections 1, 2 and 2a; and by adding eight new sections thereto, to be known as sections 10, 11, 12, 13, 14, 14a, 15, 16, 16a and 17; and appropriating money for the enforcement of said act as amended.

Be it enacted by the General Assembly of the State of Missouri, as follows:

Section 1. That sections 1 and 2 of an act entitled "An act to create the office of state dairy commissioner, and to define his term of service, duties and powers," approved April 8, 1905, be and the same are hereby repealed and the following three sections enacted in lieu thereof, to be known as sections 1, 2 and 2a, in words and figures as follows:

Section 1. Within 30 days after this act shall take effect, the governor by and with the advice and consent of the senate, shall appoint a suitable person to be dairy and food commissioner, which office is hereby created, and which commissioner so appointed shall hold office until the first day of February, 1909, and until his successor is appointed and qualified. At the next regular session of the legislature, and every four years thereafter, the governor, by and with the advice and consent of the senate, shall appoint a dairy and food commissioner, who shall hold office for a term of four years from the first day of February of the year of his appointment and until his successor is appointed and qualified. Said commissioner shall be subject to removal by the governor for cause, and in case of vacancy in said office from any cause the governor shall appoint another person to fill the same for the unexpired term.

Section 2. Before entering upon the duties of his office, the person appointed as dairy and food commissioner shall make, subscribe and file in the office of the secretary of state, the oath of office prescribed by the Constitution and shall give bond to the state in the sum of ten thousand dollars, with sureties to be approved by the governor, conditioned for the faithful performance of his duties. Said commissioner shall receive a salary of two thousand dollars a year, payable in monthly installments, and his actual necessary traveling expenses while in the discharge of his official duties. He shall be provided with an office by the state board of agriculture at the seat of the state agricultural college.

Section 2a. The said commissioner shall have power to appoint a deputy, who shall have the same powers as the commissioner, and who shall receive a salary of twelve hundred dollars a year, payable monthly, and necessary traveling expenses. Said commissioner may also appoint, from time to time, such inspectors as the proper performance of the duties of his office may require, not exceeding six in number. They shall be paid at the rate of one thousand dollars per year for time actually employed, payable monthly, and actual expenses incident to the discharge of their duties. The persons so appointed shall have power to administer oaths in matters relative to the dairy and food laws, and shall have the same right of access to the places to be inspected as the said commissioner or his deputy. The said deputy and inspectors shall hold office during the pleasure of the commissioner, and shall take and subscribe the oath of office and give bond to the state in such sum and with such sureties as may be approved by the commissioner, conditioned for the faithful performance of their respective duties. The necessary chemical work of the office shall be done by or under the supervision of the chemist of the state experiment station.

Sec. 2. That said act entitled "An act to create the office of state dairy

commissioner, and to define his term of service, duties and powers," approved April 8, 1905, be and the same is hereby amended by adding eight new sections thereto, to be known as sections 10, 11, 12, 13, 14, 14a, 15, 16, 16a and 17, which said sections are in words and figures, as follows:

Section 10. It shall be the duty of the dairy and food commissioner to enforce all laws that now exist, or that may hereafter be enacted, regarding the production, manufacture or sale of dairy products, or the adulteration of any article of food or drug, or the misbranding of the same; and personally, or by his assistants, inspect any article of food or drug made or offered for sale in this state which he may, through himself or his assistants, suspect or have reason to believe are impure, unhealthful, adulterated or misbranded, and to prosecute, or cause to be prosecuted, any person or persons, firm or corporation engaged in the manufacture or sale of food or drugs, or dairy products, contrary to the laws of this state. Said commissioner shall make rules and regulations for carrying out the provisions of this act, and such rules and regulations shall conform as nearly as practicable to the rules and regulations at present established and which may hereafter be established for the enforcement of the act of congress approved June 30, 1906, and known as the "Food and drugs act."

Section 11. It shall be the duty of any officer entrusted with the enforcement of this act, when he is required thereto by any person, to purchase from the vendor of any article sold or exposed for sale a sample thereof, and submit it for analysis, in accordance with the provisions of this act: Provided, the person so requiring such purchase and analysis deposits with such officer, at the time such a demand is made, a sum of money sufficient to pay for such sample and analysis. If upon analysis such article is found to be adulterated, within the meaning of this act, such deposit shall be returned to him.

Section 12. The dairy and food commissioner, his deputy, or any one by him appointed, is hereby authorized and empowered to enter during business hours, in the performance of his duties, any factory, store, salesroom, warehouse, laboratory, drug store, or any other place where foods or drugs are stored or exposed for sale, or place where they have reason to believe such foods or drugs are kept or offered for sale; and he may, in lawful manner, procure samples of the said articles of food or drugs, or imitation thereof, suspected of being made or sold in violation of law, and cause the same to be analyzed or satisfactorily tested by the chemist of the state experiment station; and such analysis or test shall be recorded and preserved as evidence, and the certificate of such analysis or test, when sworn to by such chemist, shall be admitted as evidence of the facts therein contained in all prosecutions that may result from such violation; and it shall be the duty of said commissioner to make complaint of such violation in the proper county, and furnish the prosecuting attorney with the evidence thereof, and obtain a conviction for the offense charged. And in the discharge of his duties said commissioner, his deputy and assistants, shall have power to open any cask, tub, jar, bottle or package containing, or supposed to contain, any article of food or drugs, and examine, or cause to be examined, the contents thereof, and take therefrom samples in the presence of at least one witness; and he shall, in the presence of such witness, mark or seal such samples, and shall tender at the time of taking, to the manufacturer or vendor of such food or drug, or to the person having the custody of the same, the value thereof; samples may be purchased in the open market or at the factory, and if in bulk, the marks, brands or tags upon the package, carton, wrapper or other container, and the accompanying printed or written matter shall be noted. The collector shall also note the names of the vendor and agent through whom the sale was actually made, together with the date of the purchase. Samples shall be divided into three equal parts: each part shall be labeled with identifying marks. One of the parts shall be delivered to the person from whom the purchase was made, or, if a guaranty has been given, such part shall be delivered to the guarantor. One of the parts shall be sent to the chemist of the state experiment station and one part shall be held under seal by the commissioner. The parts of the sample so divided shall be sealed by the collector with a seal provided for that purpose. Any person who shall obstruct the commissioner, or any of his assistants, be refusing to allow him entrance to any place which he desires to enter in the discharge of his official duty, or refuse to deliver to him a sample of any article of food or drug made, sold, offered or exposed for sale by such person, when the same is requested, and when the value thereof is tendered, shall be guilty of a misdemeanor, punishable by a fine of not exceeding fifty (\$50) dollars for the first offense, and not

exceeding five hundred (\$500) dollars,*nor less than fifty (\$50) dollars for each subsequent offense.

Section 13. It shall be the duty of the prosecuting attorney in any county or city in the state, when called upon by the commissioner, or any of his assistants, to render any legal assistance in his power to execute the laws, and to prosecute cases arising under the provisions of this act.

Section 14. When the examination shows that the provisions of this act have been violated, the said commissioner shall first cause notice of such fact, together with a copy of the findings, to be given to the party or parties from whom the sample was obtained, and to the party, if any, whose name appears upon the label as manufacturer, packer, wholesaler, retailer or other dealer. The parties so notified shall be given opportunity to be heard under such rules and regulations as may be prescribed as aforesaid. Notice shall specify this date, hour and place of the hearing. The hearing shall be private and shall take place at the office of the commissioner, and the parties interested therein may appear in person or by attorney. If the party whose name appears upon the label resides without the state he shall be entitled to reasonable notice by mail, at such address as may, with due diligence, be obtained. If, after such hearing, it appear that said food, drug or dairy product is adulterated or misbranded, or is a substitute or an imitation within the meaning of any law providing against the adulteration, misbranding, imitation or substitution of food, drugs and dairy products, said commissioner, or his deputy, or any person by him duly authorized, shall seize such goods and make complaint before any justice of the peace having jurisdiction in the city, village or township where such goods are seized; and thereupon such justice of the peace shall issue his summons to the persons from whom said goods were seized, directing him to appear not less than five nor more than ten days from the date of the issuing of said summons, and show cause why said goods should not be condemned and disposed of. If the said person from whom the said goods were taken or seized cannot be found, said summons shall be served upon the person then in possession of the goods. The said summons shall be served at least five days before the time for appearance mentioned therein. If the person from whom said goods were seized cannot be found, and no one can be found in possession of said goods, and the defendant shall not appear on the return day, then said justice of the peace shall proceed in said cause in the same manner provided by law where a writ of attachment is returned not personally served upon any of the defendants and none of the defendants appears upon the return day. Unless cause to the contrary thereof be shown, or if said goods shall be found, upon trial, to be in violation of any of the provisions of this act or other laws which may now exist, or which may be hereafter enacted, it shall be the duty of said justice of the peace to render judgment that said seized property be forfeited to the state of Missouri, and that said goods be destroyed, or sold by said commissioner, for any purpose other than to be used for food. The mode of procedure before said justice shall be the same, as near as may be, as in civil proceedings before justices of the peace. Either parties may appeal to the circuit court as appeals are taken from justice courts, but it shall not be necessary for the state to give appeal bond. The proceeds arising from such sales shall be paid into the state treasury and credited to the general fund: Provided, that if the owner or party claiming the property or goods declared forfeited can produce and prove a written guaranty of purity, signed by the wholesaler, jobber, manufacturer or other person residing in this state, from whom said articles were purchased, then the proceeds of the sale of such articles, over and above the cost of seizure, forfeiture and sale, shall be paid over to such owner or claimant, to reimburse him, to the extent of such surplus, for his actual loss resulting from such seizure and forfeiture, as shown by the invoice.

Section 14a. After judgment of the court, notice shall be given by publication in such manner as may be prescribed by the rules and regulations aforesaid. If an appeal be taken from the judgment of the court before such publication, notice of that fact shall accompany the publication.

Section 15. The commissioner shall make an annual report to the governor, on or before the first day of January of each year, which shall be printed and published. Such report shall cover the work of his office for the preceding year and shall show among other things, the number of specimens of food products analyzed, and the report of the analyst upon each one when the analysis indicates the same to be contrary to law: the

number of complaints entered against persons for violations of law relative to the adulteration and misbranding of food and drugs; the number of convictions had, and the amount of fines imposed therefor; an account of the money received and expended by him and his assistants, together with such recommendations relative to the statutes in force as his experience may justify. The commissioner may also prepare, print and distribute a monthly bulletin containing the results of inspections, the results of analysis made, or caused to be made, with proper explanations of the same, and such other information as may come to him in his official capacity, relating to the adulteration and misbranding of foods and drugs and of dairy products, so far as he may deem of benefit and advantage to the public; also a brief summary of the work done during the month by the commissioner and his assistants in the enforcement of the laws of the state; but not more than ten thousand copies of each of the monthly bulletins shall be printed, which printing shall be done by the state printer and shall be paid for in the same manner as other state printing.

Section 16. For the purpose of carrying into effect the provisions of this act and of the act entitled "An act to create the office of state dairy commissioner, and to define his term of service, duties and powers," approved April 8, 1905, as amended by this act, there is hereby appropriated, out of the state treasury, chargeable to the general revenue fund, the sum of twenty-five thousand (\$25,000) dollars, or so much thereof as may be necessary for the payment of salaries and all expenses authorized by this act.

Section 16a. All articles of food and drugs in the hands of retailers and jobbers when this law goes into effect may be sold in the condition in which they are found, provided such articles are branded to the effect that the same were on hand July 1, 1907.

Section 17. All laws in conflict or inconsistent with, or repugnant to the provisions of this act, are hereby repealed.

In the following I wish to call attention to the amendments to which we had to agree as a sort of compromise, and to other deficiencies of the bills due either to the activity of opponents or other causes. It would lead too far to go into detail into all the features of the laws or to try to answer all or even the more important questions likely to be asked by interested parties, some of which have already been asked and answered by the federal authorities. The laws are so plainly worded that explanations should really be superfluous.

STATE FOOD AND DRUGS ACT.

TITLE.

The original title was amended by adding the words "medicines, beverages and liquors." As these are included in the definitions of "food" and "drugs" and are not specifically defined anywhere in the act, these words are out of place, but, as their addition did not affect the value of the bill we made this concession to the opposition.

SECTION 2.

Ostensibly to make the Missouri law conform with the federal law, the opposition insisted upon striking out the words "all antiseptics, disinfectants, cosmetics" after the word "use" in the original. Whatever consolation this may afford them they are welcome to, as these articles are included in the definition of "drugs" anyway.

SECTION 3.

Subdivisions 2 and 3 of this section originally were worded as follows:

2. If, when sold under or by name not recognized in the latest revised edition of the United States Pharmacopœia, or National Formulary, but which is found in some other edition of the United States Pharmacopœia, National Formulary or other standard work on Materia Medica, as hereinafter defined,

it differs from the standard of strength, quality or purity laid down in such work;

3. If its strength, quality or purity fall below the professed standard under which it is sold:

Provided, that no drug, defined in the United States Pharmacopœia, National Formulary or other standard work on Materia Medica, as hereinafter defined, if sold for any other than medicinal purposes, shall be deemed to be adulterated under this section if the standard of strength, quality and purity be plainly stated upon the bottle, box or other container thereof, although the standard may differ from that prescribed in said United States Pharmacopœia, National Formulary, or other standard work on materia medica. By a standard work of materia medica as used in this Act is meant one designated as such by the State Board of Health after such designation shall have been published by the State Dairy and Food Commissioner in his annual report or monthly bulletin.

It was my desire to secure a fixed standard for as many of the medicinal preparations as possible, to prevent dozens of different formulas from parading under the same name. I had convinced the retail druggists of the reasonableness of this provision but the representative of the "United Pure Food Com. of Mo.," who attended the conference at Jefferson City at the time (I was unable to attend this particular hearing) was forced to yield to the opposition. As drugs must conform to the standard under which they are sold, this change may not cause much trouble.

SECTION 4.

Under subdivision 5 certain colors acknowledged the world over as poisonous, and certain antiseptics and preservatives were specified as being deleterious and injurious to health. This was done to save the commissioner a lot of time-consuming litigation. The provision inserted in its stead, "Provided, that" to "consumption," by the opposition, is entirely superfluous as any person preparing food in the manner indicated would not violate any provision of the law and the provision will afford no protection to him or the dealer if the material used should penetrate into the food stuff.

The provision under subdivision 6 in regard to dairy products, is an excellent one; it was inserted at the request of the representative of the Dairy-men of St. Louis.

Subdivision 10 was originally worded as follows:

10. If it does not conform to the standard of strength, quality and purity now, or hereafter to be, established by the United States Department of Agriculture; provided, that in the absence of any such standard, the State Dairy and Food Commissioner may, with the approval of the State Board of Health, establish other, or revise existing, standards for articles of food.

The standards adopted by the U. S. Department of Agriculture are expressed in the form of definitions, with or without accompanying specifications of limit in composition. The standards fixed are such that a departure of the articles to which they apply, above the maximum or below the minimum limit prescribed, is evidence that such articles are of inferior or abnormal quality.

The legality of the standards adopted has been questioned but without good grounds as far as Missouri and those standards that had been established at the time our legislature adopted them are concerned.

Unfortunately the U. S. Agricultural department is strangely slow about completing its lists of standards, and it was to remedy this deficiency of standards that the above mentioned provision was inserted in our original bill. Under pretense that too much power would be vested in a single individual, and when a commission, to consist of one member each of the State

Board of Health, Board of Agriculture and Board of Pharmacy, was suggested and although the standards fixed by the commission were to be only temporary, the opposition contended that there should be absolute uniformity of standards throughout the country and succeeded in overruling my objections to the amendment. To show how much care must be exercised in establishing or making a standard, I will say that the standards above referred to define "Skim milk" as "milk from which all or a part of the cream has been removed and contains not less than nine and one-quarter per cent. of milk solids." As full milk, from which skim-milk is made must contain not less than eight and one-half per cent. of non-fatty solids, the standard for skim-milk should provide that eight and one-half of the nine and one-quarter per cent. milk solids should be non-fatty. The omission of this provision will probably cause some trouble wherever these standards have been adopted.

SECTION 6, SUBDIVISION 3—SECTION 7, SUBDIVISION 4.

The original bill provided that the package should bear, in addition to the drugs enumerated in the law at present, a statement of the quantity or proportion of arsenic, antipyrin, strychnine, saccharin or any narcotic or otherwise deleterious or injurious or dangerous substance. Why shall not the purchaser of a proprietary or patent medicine know the ingredients (more especially the narcotic and more potent drugs) contained in his medicine. Greater care would probably be exercised by the laity if they knew what powerful and dangerous drugs entered into the composition of an otherwise innocent looking mixture. Will not the intelligent public and our own profession awake to a sense of its duty toward the helpless infants who are indiscriminately dosed with narcotic soothers to put them to sleep at night and prevent them from disturbing the slumbers of their tired parents.

SECTION 7, SUBDIVISION 6, PROVISION 2.

The addition or insertion of the words "not including harmless coloring and flavoring ingredients used for the purpose of coloring and flavoring only" is just simply rank, "It's the limit!" But as such colors and flavors are added solely to make the article appear to be better or of greater value than it really is, these compounds, mixtures and blends will be subject to subdivision 4 of Section 4. The public should refuse to buy food upon whose label does not appear the statement "no color, flavor or preservative has been added to or been used in the preparation of this food."

SECTION 12.

The original bill contained no federal guaranty provision; it was inserted by the representatives of the wholesale druggists. To offset this provision, which practically deprives the state of the power to punish a guarantor residing outside the state, Representative Dr. Wilson proposed the provision that the guarantor residing outside the state should designate a suitable person residing in the state, services served on whom should be valid as though personally served on the guarantor. In the excitement of the last days of the session and the stress of business and numerous attacks on the food laws, the clause was misplaced, so that instead of limiting the federal guaranty, it now provides for another guaranty or rather a substitute therefor which will probably not be willingly submitted to by the foreign manufacturer. But although we cannot reach the foreign guarantor through our own law he will not escape anyway as section 5 of the Federal Food and Drugs Act provides "That it shall be the duty of each district attorney to whom"—"any health or food or drug officer or agent of any state" . . . "shall present satisfactory evidence of any such violation, to cause appropriate proceedings to be com-

menced and prosecuted in the proper courts of the United States, without delay, for the enforcement of the penalties as in such case herein provided. A statement of weight or measure on the label is not required by this law and would hardly come within the scope of a food law but if the dealer or manufacturer marks the weight or measure on the package on demand of the purchaser then the matter is within the operation of this act.

The legend, now found on many bottles and packages, "Guaranteed under the Federal Food and Drugs Act, Approved June 16, 1906, Serial No." has been quite generally misinterpreted. It does not mean that the government guarantees the article nor even that the federal authorities have tested it, it merely means that, should the article so marked be found adulterated or misbranded not the dealer but the party who has filed the guaranty bearing the serial number, shall be amenable to the prosecutions, fines, etc., which would otherwise attach to the dealer under the provisions of the "Food and Drugs Act."

AMENDED DAIRY ACT.

At the eleventh hour, after this bill had passed the senate without a dissenting vote, a fierce attack was made on it by the opposition at a private hearing at the Monroe House and on the floor of the House. But Representative Dr. Wilson and I so stubbornly resisted their demands that, with one exception, the compromises agreed to do not materially affect the efficiency of the law. Had the opposition had their way this bill would have been little more than a conglomeration of meaningless phrases.

SECTION 2a.

The force provided for in this act is, of course, insufficient to enforce the "Food and Drugs Act, Approved March 16th, 1907," satisfactorily. This will be apparent enough by the time the next legislature meets, to insure the safe passage of a bill providing for at least twice the number of inspectors provided for at present.

SECTION 10.

The rules and regulations formulated by our commissioner need not necessarily conform exactly to the federal ones; the commissioner may add to or change or drop any of the federal rulings should he deem it desirable to do so.

SECTION 14.

The opponents were anxious to have the confiscation clause stricken out of this section altogether.

It was agreed upon between Dr. Wilson and myself that the goods found to be adulterated, should be seized as soon as the party holding them received his summons for the private hearing. For some unaccountable reason, the law is now so worded that the goods are to be seized after the hearing, thereby affording the dealer ample time to dispose of them. The original bill also provided that the goods seized were to be sealed and left in possession of the owner until final disposition was made of them.

This private hearing is a very objectionable feature which we could not keep out of our law because it is also found in the federal law and we conceded this to save the confiscation clause, after we had pruned off the provision that the commissioner or deputy was to hold the hearing in the county where the goods were found.

It is not probable that the chemist of the State Experiment Station would err materially or that he would make affidavit on the strength of a dubious

finding or that the commissioner would maliciously use such findings to injure a dealer as the matter would be thoroughly aired in court and a few such blunders would soon cause them to lose their positions. On the other hand such private hearings might prove exceedingly profitable to an unscrupulous commissioner and a willing chemist.

SECTION 15.

As nothing is feared more by the adulterer than publicity, the press (both lay and medical) of Missouri should publish the information given out by the commissioner in his monthly bulletins. This would enable the public to judge of the efficacy of the department, would urge the commissioner and his staff to work energetically and would pave the way for the amendments I have suggested and others which will suggest themselves in the course of time.

SECTION 16a.

As the wholesalers seemed much concerned about the time when our law should go into effect and more especially as to what should be done with the goods then on hand, relabeling or loss of some of the goods being likely to cause great hardship on the retailer (who would probably cause the wholesaler a slight hardship also), I finally suggested that the law be allowed to go into effect in due time and that all goods on hand July 1st, 1907, be so marked. This does not exempt goods shipped into Missouri from the outside, from the provisions of the Federal law; see sec. i, regulation 17, Rules and Regulations, etc.

In the above I have tried to set forth among other things, the undesirable features to which we had to concede as a compromise. Considering the fact that we were in no position to judge accurately of the strength of the opposition, and when we compare what has been accomplished with what would probably have resulted had we not introduced our measures and had either the bill introduced by the Federation of Women's Clubs or the one introduced for the Grocers, been passed, I feel that our work has been of value to the state. I had submitted copies of our bills to the chairman of the Pure Food committee of the Federation of Women's Clubs at Columbia last December and to the grocers as well, but they were unwilling to endorse our work.

Pure Food legislation is no experiment. The "Federal Food and Drugs Act, Approved June 30, 1906," which first drew the attention of the general public to this form of legislation was based on the food laws of Europe and of some of our states. The various provisions, excepting those specifically referring to interstate commerce, have been tested in the courts of Ohio, and other states repeatedly. The Missouri laws will go into effect June 16, 1907. Within thirty days thereafter the governor will appoint the commissioner who will then appoint his deputy and inspectors. The deputy and inspectors should be intelligent, energetic men, thoroughly honest, not connected with or likely to be influenced by any food or drug manufacturing or dealing concern or organization.

The commissioner and his staff should at once acquaint themselves with all foods and drugs manufactured or sold in the State of Missouri and in due time, begin to collect samples. Eternal vigilance must be exercised by every member of the commissioner's staff. Samples of the same article may have to be bought repeatedly at irregular intervals.

The commissioner and his staff should at once acquaint themselves with should find out how much aid he can give or obtain from federal and local authorities.

The family doctor should, whenever an opportunity to do so presents itself (and that is daily), educate the public in matters of pure food and drugs and when the next legislature convenes in 1909, the medical profession of this state must be ready to support any movement to improve the law.

At a recent meeting of the United Pure Food Committee of Mo., the candidacy of the present Dairy Commissioner, Mr. Washburn, was endorsed. A suggestion made to the committee by the editor of the *Interstate Grocer* that a grocer be appointed Deputy Commissioner or inspector did not meet with approval. It was the opinion of the committee that the commissioner should not be interfered with in the selection of his assistants; that whatever knowledge a deputy or an inspector would be required to possess of food-stuffs handled by grocers or others, to intelligently fulfill the duties of his office as laid down in the Dairy and Food Drugs Act, could easily be acquired by any one intelligent enough to secure a position on the Dairy and Food Commissioner's staff; that the public might have just reason to suspect that a deputy or inspector who owes his appointment to certain commercial or mercantile interests, might not be unbiased in his judgment when matters pertaining to these interests were brought up.

In conclusion I wish to thank the county medical societies, affiliated with the State Medical Association, Dr. Frank J. Lutz and the other members of the State Board of Health, Dr. Overholzer of Harrisonville, Dr. Harrison of Fulton, and especially the introducers of our bills, Senator Frank DeVilbiss, M. D., and Representative G. H. Wilson, M. D., and the other medical members of the House of Representatives, for the valuable work they did to secure the passage of the "Dairy" and "Food and Drugs" Acts, Approved March 16, 1907.

Since becoming acquainted with the medical members of our legislature and the work done by them in the legislature, I have often thought how much better it would be for the people of Missouri, if more medical men were willing to sacrifice some of their time in the interest of our people, to serve them in the capacity of a state legislator.

H. W. BARTSCHER, M. D.,
Chairman, United Pure Food Committee of Missouri.

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Volume IV.

AUGUST, 1907.

Number 2

E. J. GOODWIN, M. D., EDITOR.

PUBLICATION COMMITTEE:

WALTER B. DORSETT, Chairman.

M. B. CLOPTON.

M. C. SHELTON.

EDITORIAL.

EXAMINING BOARD REGULATIONS.

After obtaining the opinion of the Attorney General concerning the procedure whereby the State Board of Health would determine what shall constitute a *reputable* medical college, the Board adopted the following minimum requirements which will be the standard by which medical schools will be judged.

MINIMUM STANDARD OF REPUTABLE MEDICAL COLLEGES.

In justice to the medical schools as well as their graduates who may desire a license to practice medicine in Missouri, the following standard is hereby promulgated which must be complied with in order to be considered a reputable medical college, which will admit their graduates to the examinations by the Missouri State Board of Health.

From and after the 14th day of June, 1907, a reputable medical college shall be one which demands for graduation:

First:—The statutory preliminary requirements.

Second:—A four years graduate course of instruction.

Third:—Properly equipped laboratories in the following branches as described by the Statutes: Anatomy, Chemistry, Physiology, Pathology and Bacteriology.

Fourth:—Adequate clinical, hospital and dispensary facilities.

The following are the

MINIMUM REQUIREMENTS

IN EQUIPMENT, LABORATORY WORK AND CLINICAL INSTRUCTION.

Instruction shall extend over 30 weeks.

All apparatus and equipment is calculated on the basis of sections of twenty-four students.

EQUIPMENT AND LABORATORY WORK.

(1). ANATOMY.

(A) GROSS ANATOMY.

(a) GENERAL.

- (1) A dissecting room and a lecture room.

- (2) Dissecting tables.
- (3) Store room for preserving cadavers.
- (4) Apparatus for embalming cadavers.
- (5) Instruments for post mortem technique.
- (6) Preserved anatomic preparations for demonstration and study.
- (7) Mounted skeletons for demonstrations and lectures.
- (8) Anatomical models.

(b) INDIVIDUAL.

- (1) Unmounted skeletons for students' use.

(B) HISTOLOGY AND EMBRYOLOGY.

(a) GENERAL.

- (1) Laboratory with tables.
- (2) One large microtome.
- (3) An oven for paraffin embedding.
- (4) Apparatus for injecting blood vessels.
- (5) Histological reagents, stains, etc.
- (6) A series of embryological specimens and models.
- (7) Jars, cases, etc., for preserving histological and embryological material, demonstration slides, etc.

(b) INDIVIDUAL.

- (1) One compound microscope for each two students in the section, with two objectives.
- (2) One set of histological reagents, stains, etc., for each two students in section.

LECTURE AND LABORATORY HOURS.

	HOURS LECTURE	HOURS LABORATORY
General Gross Anatomy	220	230
Histology	30	60
Embryology	30	60
	<hr/> 280	<hr/> 350

(II) CHEMISTRY.

- (1) Lecture Hall.
- (2) Students laboratory.
- (3) Collection of
 - (a) Prime materials, organic and inorganic.
 - (b) Chemical elements, metals and metalloids.
 - (c) Chemical compounds.
 - (d) Illustrations showing stages of process of manufacture of the common remedies.
 - (e) Models and diagrams.
- (4) Apparatus for weighing and measuring; spectroscope.

Lectures:	180 hours	} for 2 years
Laboratory:	120 hours	

(III) PHYSIOLOGY.

(a) GENERAL.

- (1) A lecture room.
- (2) Laboratory.
- (3) Apparatus: Kymograph, mercury manometer, respiration apparatus, spirometer, CO₂ apparatus, tambours, sphygmograph.
- (4) Animal house or room.

(b) INDIVIDUAL.

- (1) Laboratory arrangements: One set for each two students. Each set of apparatus for muscle, nerve and circulation to include: two stands, six clamps, one muscle lever, one moist chamber, two time markers; two dry batteries, one induction coil, one platinum electrode, three simple electric keys, two heart levers, one warm chamber and one smoked paper kymograph.
Lecture hours 180. Laboratory hours 120.

(IV) *PATHOLOGY.*

- (1) Laboratory and a lecture room.
 - (2) Microtomes for celloidin, paraffin and frozen sections.
 - (3) One microscope for every two students.
 - (4) Chemicals for staining and glassware for mounting sections for each individual student.
 - (5) Supply of pathological material.
- Lectures during second and third years to be divided as follows:

	HOURS LECTURE	HOURS LABORATORY
Second Year	120	120
Third Year	30	30

Including Surgical Pathology.

(V) *BACTERIOLOGY.*

- (1) Incubator.
- (2) Steam and hot air sterilizers.
- (3) Glassware and apparatus for the preparation of culture media, etc.
- (4) Microscope having 2-3, 1-6, and 1-12 inch oil immersion lens, Abbe condenser and diaphragm, for every two students in section.
- (5) Lectures 30 hours. Laboratory work, 60 hours in second year.
- (1) Collection of such drugs as are commonly dispensed by pharmacists or physicians.
- (2) 60 lectures; including prescription writing.

(VII) *THERAPEUTICS.*

- (1) 30 lectures.

(VIII) *MEDICAL JURISPRUDENCE.*

- (1) 20 lectures.

(IX) *HYGIENE.*

- (1) 20 lectures.

CLINICAL WORK.

CLINICAL INSTRUCTION.

- (1) Clinical instruction to classes in general medicine and surgery twice weekly during the third year. 60 hours in medicine and 60 hours in surgery.
- (2) Bedside instruction in sections twice weekly during the fourth year in general medicine and surgery for 60 hours each. In the special departments: 30 hours in each department advertised.
- (3) Obstetric clinical instruction to individuals or sections during the third and fourth years so that each student shall have attended five obstetrical cases before graduation.

The committee of the Board which was appointed for the purpose of inspecting medical schools and to report concerning their equipment, the courses of instruction and their clinical facilities, made a report at the Mexico meeting on the 18th day of July. The report of the committee was adopted and the deficiencies of the various medical colleges which have been pointed out by the committee, were brought to the attention of the schools by the Board and they were requested to remove these defects in order to be recognized as reputable. Sufficient time was allowed the schools in which to comply with the law or discontinue their courses.

By October the first it is the intention of the Board to give such publicity to the condition of the medical schools as will enable young

men wishing to begin the study of medicine to inform themselves of the status of the colleges.

The Board will furnish to those desiring to enter a medical school and who have not the proper documentary evidence of the preliminary requirements exacted by the law, the following form which is self explanatory.

AFFIDAVIT OF COUNTY SCHOOL COMMISSIONER.

STATE OF MISSOURI }
County of..... } ss

TO THE STATE BOARD OF HEALTH:

I..... of lawful age, being duly sworn, depose and say: I am the.....of..... located at..... in the State of Missouri. That at the request of residing at.....who is an applicant for admission to examination before the State Board of Health for license to practice medicine and surgery, I made a special written examination of said applicant for the purpose of enabling him to make such application; that the dates and places of said examination and time consumed therein are as follows:

.....
.....
.....

That the grade or proficiency actually shown and fairly and justly earned by said applicant upon said examination on the scale of 100 is, in each study as follows:

(Grades must average 75 per cent.)

English Grammar	English History	
Rhetoric	American History and Government...	
American Literature	Chemistry	
English Literature	Biology	
Arithmetic	* { French	
Algebra		German
Plane Geometry		Latin
Solid Geometry and Trigonometry...		Spanish
Ancient History .....	.....
Mediaeval and Modern History.....	.....

I further state that said examination was wholly conducted by myself in person and at the times and places above set forth; that said applicant did not, directly or indirectly, receive any improper aid or assistance during or before such examination.

.....
Signature.

Subscribed and sworn to before me, this the.....day of.....190..
My commission expires.....19..

.....
Notary Public.

Medical schools outside of Missouri must comply with the same standard.

GIFT OF THE BARNES MEDICAL COLLEGE TO THE
STATE UNIVERSITY.

The recent gift made by the Board of Trustees of the Barnes Medical College to the state is another one of the evidences of the progress of medical education in this state. The valuable college building and the adjacent Centenary Hospital were donated to the

*Select one of either in the bracket.

state in order to enable the medical department of the State University to establish its two last years of teaching in St. Louis where students can enjoy proper clinical instruction. The trustees of the Barnes Medical College have made the greatest contribution to medical education which has ever been made in this state, not only by transferring their possessions, thereby diminishing the number of medical colleges (the Barnes Medical College will cease to exist after this scholastic year, 1907 and 1908), but it has also rescued the State University Medical Department from a very dangerous position, for the State University located in Columbia cannot furnish adequate clinical facilities.

Medical education is so expensive that the fees of the students cannot defray the cost of conducting a medical school. The demands on the part of the people for higher medical education; the increased standards set everywhere, require the strong arm and the financial support of the state or large endowments to successfully carry on medical education.

The state of Missouri has chosen to support higher medical education, as the people of this state expected it would do, and the owners of the Barnes Medical College have made the first contribution toward assisting in this work of the state.

No better opportunity was ever presented to establish a high grade medical school. The large clinical facilities which already exist or can be provided in St. Louis, with a learned and enthusiastic profession from which to draw teachers and with the loyal support of the medical profession, the success of the Medical Department of the State University in its last two years promises to be as great as that of its laboratory years.

We congratulate the Barnes Medical College, the State of Missouri and the medical profession upon this happy event.

IS THIS A NEW ONE?

It was not to be expected that humbugging and faking in medical advertising would be stopped in the short time that has elapsed since the profession was aroused from its indifference toward the methods used by the patent medicine and pseudo-scientific frauds. We did hope, however, that we should not be called upon to condemn one in our own ranks for attempting to introduce an article through channels other than those provided by the profession itself, namely, the Council on Pharmacy and Chemistry. It was, therefore, with something of a shock that we perused the following, which came to us through the mails, printed on an ordinary post-card:

New York, July 17, 1907.

My Dear Doctor:

I am just commencing to introduce to the medical profession (on strictly ethical lines) a positive cure for tuberculosis in any form.

This discovery is the result of fourteen years scientific study and experimentation and has been thoroughly tested by many prominent physicians.

You can treat your patients at home and cure them in from six to sixteen weeks according to the stage of the disease. As startling as this statement may seem to you, if you have a Tubercular patient now, we will be pleased to furnish you with the theory, literature and abundant testimonials and a \$3.00 size sample to prove what we say, the only charge being fifteen (15) cents in stamps to cover postage.

Doctor, a trial will prevent your tubercular patients from saying your neighbor doctor is curing his patients in a few weeks right at home, while you are sending them at great expense in time and money to the remote resorts for consumptives.

Respectfully yours,

—M. D.

Member N. Y. State Med. Society.
American Medical Association.

If this is ethical we shall be under the necessity of altering our conception of the meaning of that word.

As it emanates from one who holds membership in the New York State Medical Society and in the American Medical Association we shall refrain from further comment, as we presume his action will be made the subject of investigation by the two bodies of which he says he is a member.

RALLS COUNTY SOCIETY FOR THE PREVENTION OF TUBERCULOSIS.

The Ralls County Society was organized Thursday afternoon, July 11th, at Spalding, Mo. This is the second local Anti-Tuberculosis Society organized in the State and is affiliated with the Missouri Association for the Relief and Control of Tuberculosis. There were present in addition to the physicians who are members of this Society, many ladies, editors, attorneys and business men. Addresses were made by Drs. T. J. Downing and W. T. Waters of New London. Drs. H. S. Harwood of Rensselaer and Dr. R. C. Strode, Prof. C. F. Holland of New London, Dr. Wm. Porter of St. Louis, Robert J. Newton of St. Louis, Secretary of the Missouri Association, and others. Much interest was manifested by all present. The meeting was held in the open air on the shore of the Sulphur Lake.

The officers are Col. Joseph Burnett, President, editor of the "New London Record", New London; Dr. W. T. Waters of New London, Secretary; Prof. C. P. Holland, of New London, Treasurer. The

Directors are, in addition to these three officers, Dr. T. J. Downing of New London, Mrs. John Brisco of New London, and Mrs. Elisa Alexander and Miss Millie Wilson of Spalding Springs, Mo.

Under the direction of the Missouri Association for the Relief and Control of Tuberculosis, Societies are now being formed in Kansas City, Jefferson City, Scotland County and other places. It is planned to thoroughly organize the State and Societies will be formed in every town of over 5,000 inhabitants and in every county.

The Missouri Association is working to secure a Traveling Tuberculosis Exhibit similar to those shown in the East. This Exhibit will consist of photographs, charts and models, showing graphically what consumption is, how it is spread, and methods of relief and prevention.

The movement for the Prevention of Tuberculosis is world wide! In America the National Association for the Study and Prevention of Tuberculosis is carrying on a strong educational campaign, and is organizing Societies in all the large cities and in every state.

The Jasper County Medical Society is the first in the state to make a contribution of 25 cents for each member (\$12.00 in all) for the benefit of the Missouri Society for the Relief and Prevention of Tuberculosis.

Our attention has been directed to the fact that the name of Dr. Robert Barclay, of St. Louis, was omitted from the published list of members in attendance at the last annual meeting at Jefferson City. Dr. Barclay was present at the meeting and his name should have appeared in the list.

The St. Louis Medical Review announces that with the issue of July 6th it will cease to publish a weekly edition, but will continue in a new series as a monthly publication. The first issue of the monthly will appear August 1st.

The State Board of Health cited eleven physicians of Kansas City to appear before it on July 30th, to answer charges of unprofessional conduct, and give reasons why their licenses to practice should not be revoked.

The *Interstate Medical Journal* (St. Louis) announces the purchase of the *St. Louis Courier of Medicine*, one of the oldest medical journals in the West, and its consolidation with the *Interstate*.

The *St. Louis Courier of Medicine* was established in 1879 by an association of prominent St. Louis physicians and always commanded a large following throughout the West and South.

This is the fourth medical journal that has been purchased and absorbed by the *Interstate* during the past few years.

CORRESPONDENCE.

Editor, Journal Missouri State Medical Association:

Dear Sir:—In an editorial in the June issue of the Journal, entitled "The House of Delegates," pages 756 and 757, is stated:

"The Committee (Nominating Committee) also made a radical departure from the established customs of the Association and offered nominations for officers not within the province of the House of Delegates to elect. This action caused considerable discussion, consumed more time and was finally and very properly ruled out of order."

In behalf of the Nominating Committee, who acted conscientiously and in good faith, it is only justice to make the following exposition, and we send you this letter for publication.

It was not the intention of this Committee to foist upon the Association an undesirable procedure or depart from any previous custom, without some good reason for such action. Therefore any so-called radical departure was based upon a careful interpretation of the Constitution and By-Laws.

Section 2, Chapter V, in which is explicitly stated "The Committee shall report the result of its deliberations to the House of Delegates in the shape of a ticket containing the name of one member for each of the officers to be filled at that annual session.

In Section 2, Article VIII is stated "The Secretary and Treasurer shall be *elected* by the Council."

In Section 4, Article VIII is stated "The President shall be elected by the General Assembly."

Neither section definitely or even remotely fixes the nominating power.

Under these provisions this Committee reported the "result of its deliberations" and nominated a ticket "containing the name of one member for *each* of the offices to be filled."

R. D. MOORE, Chairman,
C. W. FASSETT, Secretary.

Editor, Journal Missouri State Medical Association:

Dear Doctor:—At the Atlantic City Session of the American Medical Association the following resolutions, regarding the work of the Council on Pharmacy and Chemistry, were presented by the Reference Committee on Reports of Officers and were unanimously adopted by the House of Delegates.

Whereas, The Council on Pharmacy and Chemistry, after examining many hundreds of preparations, has officially announced its approval of a large number of such preparations; and

Whereas, We believe that the editors of many medical journals in this country, both official organs of State Associations and privately owned journals, are desirous of co-operating in the work of freeing the medical profession from the nostrum control; therefore, be it

Resolved, That this Association most earnestly requests all medical journals to refuse to aid in promoting the sale of preparations which have not been approved by the Council, by refusing advertising space to such preparations; and be it further

Resolved, That we most earnestly request the moral and financial support of our members for those medical journals, whether privately owned or controlled by medical organizations, which disregard commercialism and stand firm for honest and right dealing, thus sustaining the Council in its greatest work for the medical profession.

In accordance with the instructions of the House of Delegates, I am sending you a copy of these resolutions in the hope that the American Medical Association and its Council on Pharmacy and Chemistry may have your support and co-operation in this most important work. I am also sending you a list of the preparations that have thus far been approved by the Council, as well as some articles reprinted from *The Journal* which will, I hope, be of interest to you.

Very truly yours,

GEORGE H. SIMMONS, General Secretary.

COUNTY SOCIETY NOTES

CASS COUNTY MEDICAL SOCIETY.

The Cass County Medical Society held its regular meeting in Harrisonville on July 11th.

The meeting was a good one in every sense of the word. Two new members were added to the list.

Dr. G. W. Farrow read a paper on "Electricity in Therapeutics," which is to be continued at our September meeting. Dr. W. M. Clemmons read his paper on "Exophthalmic Goiter." Dr. Wm. Frick of Kansas City read a paper on "Pathology and Treatment of Epithelioma."

Those present and entering into the discussions were: Drs. T. W. Adair, W. M. Clemmons, H. A. Brierly, R. H. Burney, R. D. Ramey, Wm. Frick, M. P. Overholser, G. W. Farrow, H. S. Crawford, J. S. Triplett and H. Jerard.

The next meeting will be held on September 12th.—W. F. CHAFFIN, M. D., Reporter.

CLINTON COUNTY MEDICAL SOCIETY.

The Clinton County Medical Society met in Plattsburg, July 2nd, in regular quarterly meeting with a good attendance of the members.

Dr. John Sturgis, of Perrin, gave a "Discussion of Aconite; its Pharmaceutic, Toxicological and Therapeutic Action," which was very complete and elicited a discussion from all present.

Dr. G. B. Rush of Lathrop presented a clinical case of carcinoma of the uterus, which was discussed by all.

The committee, Dr. R. W. Rea and P. M. Steckman, reported the resolutions regarding Life Insurance Examinations, which were accepted.

The board of censors reported favorably upon the application of Dr. H. E. Desmond, and he was voted a member of this society.—E. A. COLLEY, M. D., Reporter.

GASCONADE-OSAGE-MARIES COUNTY MEDICAL SOCIETY.

The Gasconade-Maries-Osage County Medical Society met in adjourned session at Meta, Mo., on the 27th of June, 1907. The following members were present: Drs. W. R. Ferrell, M. E. Spurgon, J. D. Seba, Jas. Jose, J. W. Nieweg, J. J. Radamacker, S. J. Terrell and J. E. Neely; Dr. Beynon, visiting.

Dr. S. J. Terrell presented a case which was discussed by Drs. Seba, Ferrell, Radamacker, Beynon, Jose, Spurgeon, Nieweg and Ter-

rell. Dr. J. J. Radamacker presented a case which was discussed by Drs. Seba, Beynon, Jose, Spurgon, Neely and Ferrell.

Dr. J. W. Nieweg read a paper entitled "Proprietary and Pharmaceutical Medicine." Discussion by Dr. Seba. Moved and carried to adjourn until 8 o'clock p. m.

Immediately after reconvening, the discussion of Dr. Nieweg's paper was taken up and the following took part: Drs. Jose, Spurgon, Neely, Beynon, Terrell and closed by Dr. Nieweg.

A letter from Dr. R. O. Cross was read by the secretary. It was moved and carried that the letter be laid over until the next meeting, and that the secretary be instructed to secure more information.

Each of the three constitutional amendments offered at the previous meeting was adopted.

Dr. J. D. Seba read a paper entitled "Head Injuries." Discussion by Drs. Jose, Spurgon, Beynon, Neely, Nieweg and closed by Dr. Seba.

Dr. Briegleb's paper, entitled "Medical Practice a Business Not an Eleemosynary Institution," was read by the secretary. Discussion by Drs. Seba, Neely, Jose, Spurgon, Nieweg and Ferrell.

It was moved and carried that a vote of thanks be extended the Meta physicians for their hospitality.

The next meeting will be held at Belle, Mo.—J. W. NIEWEG, M. D., Secretary.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF JUNE 28TH.

The Committee on Public Health and Legislation reported having called upon the Prosecuting Attorney and that he had promised to look after the illegal practitioners of medicine in this county.

Dr. H. K. Cowen, recently of Pittsburg, Kansas, was elected to membership in this Society by transfer card.

Dr. J. L. Ormsbee read a paper entitled "Refilling of Prescriptions." He said the refilling of prescriptions by druggists without the authority of the physician, not only causes a loss to the physician but it may do much damage to the patient and react again on the reputation of the physician. The physician can control the use of his name, but he cannot control the use of the combination of drugs which he prescribes. However, as it is the name of the physician which makes the prescription valuable to the patient, the withholding of the name of the physician on refilled prescriptions would tend to lessen this practice.

He recommended the use of a certain prescription blank that has proved satisfactory to both doctors and druggists in some parts of the country. This blank is described as follows:

Physician's name, address, office hours, telephone number, etc., at the top of an ordinary sized blank; immediately below this is the fol-

lowing: "Note—The conditions under which this prescription are written will be found on the reverse side hereof." Immediately below this note the sign R and "For....." At the bottom of the sheet and in the left hand corner is printed the druggist's card in small type.

On the reverse side of the sheet the conditions referred to in the "Note" are stated as follows: "This prescription is written for the party whose name appears thereon, for the present indications only, hence it is NOT TO BE RENEWED without my written consent, and NO COPY OF SAME IS TO BE GIVEN. The Pharmacist compounding it will kindly preserve the same on his prescription file." Then follow blank spaces for the date and the doctor's signature. In addition to all this the druggist places on the container a sticker reading as follows: "Your physician directs that this prescription IS NOT TO BE REFILLED without his consent."

In some cases the doctor does not care to restrict his prescription and in others he wants very much to do so. By omitting to sign on the back, he omits the restriction and makes it an ordinary prescription, but it must be signed on the face to be legal.

In addition to this paper, the subject for general discussion was "Diarrheal Diseases of Children," and the following members took part: Drs. Fulton, J. Kerr, Beattie, O. Smith, Cox, Patterson, Knabb, Peak, W. M. Smith, Woody and N. C. Williams.

On motion the Society adjourned for the summer vacation until the second Friday in September, 1907.—J. L. ORMSBEE, M. D., Secretary.

JEFFERSON COUNTY MEDICAL SOCIETY.

The Jefferson County Medical Society met at Festus, July 3d.

The physicians of Festus had a very interesting clinic, which was followed by a discussion of a number of important medical questions.

After adjournment, the members were entertained by one of the Festus physicians and after partaking of the best of the land, we extended to our host a vote of thanks.

The next meeting will be held at DeSoto, the fourth Tuesday in October.—R. E. DONNELL, M. D., Secretary.

RALLS COUNTY MEDICAL SOCIETY.

The Ralls County Medical Society met in regular session on July 11th at Spalding.

The scientific program consisted of a "Symposium on Tuberculosis." Five papers were read and very generally discussed.

Fourteen physicians were present. After adjournment, a Ralls County Society for the Relief and Control of Tuberculosis was organized.

Among the visitors present was Dr. William Porter of St. Louis.—T. J. DOWNING, M. D., Reporter.

RAY COUNTY MEDICAL SOCIETY.

The Ray County Medical Society met in regular session at Hardin, Wednesday, July 17th. An interesting and profitable program was rendered as follows: "A Systematized Course of Study for the County Society," Dr. C. B. Shotwell; "The Relation of the County Society to the Public," Dr. F. G. Higdon; "Management of Summer Diarrhea," Dr. L. D. Greene. Dr. Shotwell was unable to be present, but sent his paper which was read by Dr. Sevier. The papers were all ably written and were thoroughly discussed.

The next meeting will be held at Richmond on the third Wednesday in September, at which time papers on typhoid fever and malaria will be presented by Dr. T. B. Cook and Dr. M. Grimes, respectively.

The following officers were elected for the ensuing year: President, Dr. E. H. Musson; First Vice-President, Dr. L. D. Greene; Second Vice-President, Dr. Robert Sevier; Secretary, Dr. H. S. Major; Treasurer, Dr. M. Grimes.—H. S. MAJOR, M. D., Secretary.

SALINE COUNTY MEDICAL SOCIETY.

The meeting was called to order at 11 a. m., July 9th.

The committee appointed to select a subject for discussion at next meeting announced the subject of "The Civic Relations of the Medical Profession—What are Our Duties as Citizens?" Drs. D. C. Gore, Owen and Harris were appointed to discuss the subject.

The name of Dr. H. H. Ringen, of Sweet Springs, was proposed for membership and referred to the committee on credentials and membership.

Adjourned until one o'clock.

At the afternoon meeting the subject of "Summer Diarrhea" received our attention. Dr. Richart, of Blackburn, read a paper upon the etiology, pathology and prophylaxis. Dr. Hall then discussed the clinical history and symptoms; Dr. Edmond discussed the treatment.

Dr. A. R. Edmond then read a fine paper eulogizing the country doctor, and the Society decided to have the paper submitted to the State Journal for publication.

The next meeting will be held on August 13th.—A. E. GORE, M. D., Secretary.

SHELBY COUNTY MEDICAL SOCIETY.

The Shelby County Medical Society met in Shelbyna on June 25th.

Drs. Vaughn and Smith reported cases of pericarditis and an interesting discussion of pericarditis and endocarditis followed by Drs. Pollard, Singleton, Owen, White, Wood and Dallas.

Dr. Dallas gave an excellent talk on some of the needs of the profession and the advantages of a thorough organization.

On motion adjourned to meet on the first Tuesday in September.—A. M. WOOP, M. D., Reporter.

BOOK REVIEWS

INTERNATIONAL CLINICS. Vol 2. Seventeenth Series. 1907. J. B. Lippincott Company, Philadelphia.

The International Clinics are too well known to require any further introduction. The present volume is full of interesting and instructive material gathered from America and Europe.

The following contributions are of unusual value:

Colt (John Hopkins) has an article on the vaccine treatment of infectious diseases in which he discusses Wright's opsonic theories in a thoroughly fair and critical manner. This is valuable, especially at present, as the theory is so alluring that many are liable to be led astray by it to such an extent that what is probably a valuable addition to our knowledge and armamentarium is apt to be unjustly damned.

H. S. Clogg (Charing Cross Hospital) discusses perforated duodenal ulcer. In two of his cases the disease was thought to be appendicitis. This error in diagnosis is most excusable as in reality all that the physician can diagnose is peritonitis probably due to perforation of a viscus, and the duodenum and appendix may lie exceedingly close together.

Appendicitis in Pregnancy.—Cuthbert Lockyer, (London) gives this advice: Ignore the pregnancy. If an abscess is present open it; drain; leave the uterus alone unless labor has begun. Under the latter circumstances conclude the labor and then treat the appendicitis. If pus is present during the puerperium open, drain, make counter drainage through Douglas' pouch. If the uterus becomes infected, remove it."

Bodine, (New York) discusses the use of local anesthesia in the cure of inguinal hernia. He has performed the operation 400 times successfully, using cocaine (1:500) in salt solution. He thinks it wise to administer $\frac{1}{4}$ gr. of morphine about half an hour before operating.

Cumston (Boston) contributes a useful article on "Surgical Syphilis," but confines his remarks practically to a consideration of hepatic syphiloma.

J. F. BINNIE.

RETINOSCOPY OR SHADOW TEST. By James Thorington, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic, etc. Fifth Edition revised and enlarged. 54 illustrations. Philadelphia, P. Blakiston's Son & Co. 1906. \$1.00 net.

This little volume is so well known to ophthalmologists that extended notice of this latest edition is unnecessary. The book has been reduced in size in spite of the fact that some new illustrations have been added.

THE PRACTITIONER'S LIBRARY OF GYNECOLOGY, OBSTETRICS AND PEDIATRICS, in Original Contributions, by Eminent American and English Authors. THE PRACTICE OF GYNECOLOGY—Edited by J. Wesley Bovee, A. M., M. D., Professor of Clinical Gynecology in the George Washington University, Washington, D. C. Large octavo, 836 pages, with 382 engravings and 60 full-page plates in colors and monochrome. THE PRACTICE OF OBSTETRICS—Edited by Reuben Peterson, A. B., M. D., Professor of Obstetrics and Diseases of Women in the University of Michigan, Department of Medicine and Surgery, Ann Arbor, Mich. Large octavo, 1087 pages, with 523 engravings and 30 full-page plates in colors and monochrome. THE PRACTICE OF PEDIATRICS—Edited by Walter Lester Carr, M. D., Consulting Physician to the French Hospital; Visiting Physician Infants' and Children's Hospital, New York. Large octavo, 1014 pages, with 199 engravings and 32 full-page plates in colors and monochrome. Price per single volume, Cloth, \$6.00; Leather, \$7.00; Half Morocco, \$8.00. Price for any two volumes, Cloth, \$11.00; Leather, \$13.00; Half Morocco, \$15.00. Price for the three volumes, Cloth, \$15.00; Leather, \$18.00; Half Morocco, \$21.00. Lea Brothers & Co., Philadelphia and New York.

In preparing this new Series the object has been to cover the whole domain, composed of three cognate major specialties. Eminent American and English authors have united under the editorship of Drs. Bovee of Washington, Carr of New York and Peterson of Ann Arbor. By excluding those features of disease which are properly to be sought in works on General Medicine these volumes find space for a complete and comprehensive presentation of their respective subjects, with full practical details. Together with the most advanced knowledge of established value the authors have included their own observations, and the therapeutic measures which have resulted in the greatest success. This adds a personal element of obvious value. Abundant engravings and full page plates illuminate the text, the facilities at command of the editors having enabled them to secure photographs and drawings exhibiting any point desired. Though it is manifestly to the advantage of every physician to have the whole Library at hand, the volumes are sold separately for the convenience of those interested in the individual departments.

GENITO-URINARY DISEASES AND SYPHILIS. By HENRY H. MORTON, M. D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital. Illustrated with 158 Half-tone and Photo-engravings and 7 Full-page Colored Plates. Second Edition, Revised and Enlarged. Royal Octavo, 500 Pages. Bound in Extra Cloth. Price, \$4.00, net. F. A. Davis Company, Publishers, Philadelphia, Pa.

In this edition much material has been added to the subjects considered. The additions comprise especially the development and perfection of surgical procedures for hypertrophy of the prostate and knowledge of the surgical diseases of the kidneys.

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ORIGINAL ARTICLES

PRESENT STATUS OF THE TREATMENT OF MALIGNANT DISEASE BY THE X RAY.

BY J. N. SCOTT, M. D., KANSAS CITY, MO.

The term malignant disease includes a variety of manifestations. It is used to indicate the formless proliferation of cells which occur when the textural balance of tissues are upset and are undergoing a retrograde metamorphosis, when the cells grow wild and obey no laws. These cells are more lowly organized than normal tissues and have less resisting powers to certain agents, such as the x ray than normal tissues.

It is the consensus of opinion among investigators that age tends to unbalance the harmonious relationship that exists among certain cells which compose the animal organism and that carcinoma especially and sarcoma increase in proportion as age advances, but some of our text books would lead us to believe that we could nearly exclude carcinoma in persons under 35 years. However, this is not the case as we often find that epithelioma and carcinoma in persons from 15 to 35 years as verified by microscopical examination. Sarcoma we may find from infancy up. It is highly probable that the retrogressive glandular metamorphosis which occurs as age advances are conducive of the genesis of malignant disease.

We find malignant disease more prevalent among races which habitually eat cold storage cooked foods. The Esquimaux who consume raw meat, and vegetarians who are generally inhabitants of tropical countries, also Japanese who are nearly vegetarians, are singularly free from malignant disease.

I think that the influence of diet and especially the use of meat which has been killed for some time, allowed to ripen and obtain good flavor by being placed in cold storage, should be investigated.

As yet, very few facts as to the causative influence of cancer have been proven; as an example, traumatism or irritation is given as one

of the most common causes. I will refer to my case record as to the probable cause of a few cases. In one case of a rapidly growing epithelioma on the nose, the patient gives a history of being out hunting and running a hedge thorn in the side of the nose. The wound did not heal, but became indurated around the edge and gradually enlarged. The local physician cauterized it in an effort to destroy the excessive paliferation of cells, but it took on a more rapid growth than ever and the patient came to me with an enlargement one and half inches long, three quarters of an inch broad and a half inch high. I referred the case to Dr. Frank Hall for microscopical examination and he pronounced it a rapidly growing epithelioma. Now a thousand or two thousand persons may be pierced by a hedge thorn and not produce an epithelioma, but it evidently was the irritating cause in this case.

Another man was hoisting hay into a loft, by means of a rope and pulley, when he lost control of the rope, it slipped and rubbed his cheek. The fibre of the rope cutting through the skin on the cheek. This place did not heal and so an epithelioma started. What caused it? Irritation or the rope!

In nearly all sarcomas and carcinomas of the breast, if the patient's memory is stimulated a little, you can obtain a history of a bruise, sometimes months before, but more often only a day or two.

From examining a large number of these cases and getting their histories, although a former bruise may have been a predisposing cause, I think a bruise may have irritated a preexisting growth and called their attention to it when they would discover a lump in the breast which was tender, and they would then consult their family physician, telling him they had bruised their breast and that it was quite sore. He would find an enlargement in the breast with glandular enlargement under the arm. This growth would be so large it could not have formed and caused a glandular involvement of the axilla since the time of the injury. I believe in many of these cases, the growth has been present for months, without the patient's knowledge and the traumatism merely caused them to consult their family physician, who diagnosed the condition and gave the cause as traumatism.

It is claimed that all neoplasms originate from a matrix of embryonic cells of congenital origin and when free from control exercised over them by a complex organism or stimulated by some irritation or traumatism, they act as a free agent and maintain their species by indefinite multiplication. If this is the cause it is comparatively easy to explain the action of the x ray on these growths.

The x ray will destroy any tissue if applied to it in sufficient quantities, but it has a selective action in that the more highly organized the tissues the more resisting power to the x ray.

The x ray in small doses is a stimulant. If it is applied just beyond this point it will destroy tissue, but not more rapidly than will be replaced by nature. This is illustrated by applying just enough to normal tissues to produce destruction, but not more rapidly than repair takes place. The skin will be destroyed in an average of about ten days and will peel off, but new skin will be formed before the old skin comes away, and will not leave a raw surface, but a delicate new skin. The deeper tissues will be destroyed but not come away in a mass, as the skin did, but be absorbed and new tissues take their place as they are absorbed. However, if we apply a larger dose, new tissue will not take the place of that destroyed as rapidly as it is destroyed and we obtain what is commonly called an x ray burn, which is a necrosis of the tissue due to an excessive application of the ray.

This condition is very slow for repair and should never be produced in healthy parts. I am firmly convinced that the x ray has an inhibiting effect on all growths to which the proper dose is given, and is indicated in those cases it will reach in sufficient dose without breaking down the superficial tissues; as in case of a fire in a building, the proper thing to do is to call out the fire department and throw all the water possible on the fire. In some fires the whole building will burn, in others, part may be saved; invariably it will be put out before great damage may be done, but some buildings will be entirely destroyed in spite of the efforts of the fire department. Is that a reason why the fire department should not be called out and make every effort to save the building?

It has been proven beyond a question that malignant tissue has less vitality to the x ray than healthy tissues because they are more highly organized.

In the treatment of malignant growth it then becomes a question whether we can get sufficient ray on all the growth to inhibit or destroy it more rapidly than it will repair; if a part of the growth is situated under a bone the chances are that the ray will only stimulate and make that part grow more rapidly.

In cases of malignant growths of the uterus, unless limited to the cervix, in which case we can reach them through a speculum, is it any wonder that the x ray treatment only hastens the growth. The same applies to malignant diseases of the stomach, intestines, etc. If we have a growth on the face which is generally of the epithelioma type, we can apply it to the whole growth and I believe 95 per cent. of these which are not more than a half inch in diameter can be permanently destroyed by the x ray.

Statistics show that the cosmetic effect of the x ray treatment of a growth on the face is much better than that of any other method. Consequently I believe there is no comparison between the efficiency of treatment of a growth of the face by the x ray than all other methods.

In carcinoma of the breast, in which there is no secondary involvement of the internal organs; if there is secondary involvement, of course, the patient is doomed, irrespective of the method that is employed. In case of apparent involvement of the breast alone we go on the principle that the axillary glands are also involved. If an operation is performed the breast and axillary glands are removed; if it does not return the patient will have a limited motion of the arm and go through life minus a breast. If the case is successfully treated by the x ray, as it will be in the majority of cases if the ray is applied properly, the woman will end her existence with much more peace of mind than if she had to wear pads and could not raise her arm above the shoulder. When a case is operated on surgically and the growth is proven to be malignant by microscopical examination, I think the case should be given x ray treatment for a period of about two months.

It is much easier to destroy any remaining cells at this early period than it is after they have grown sufficiently to be made out by palpation. We have a great advantage here in that there is not much tissue to go through until the ray comes in contact with the malignant cells.

The x ray can not be applied to large areas of the body in large doses without producing such a rapid tissue change that the eliminating organs cannot carry off the waste products as fast as liberated, and we will have a rise of temperature, an autointoxication and great depression, but an application to a reasonably large area is safe.

In all x ray applications it should be applied only to parts known to be involved by the growth and a reasonable amount outside of this. The remaining portion of the body should be protected by suitable covering which will prevent the penetration of the x ray.

The x ray has one advantage over the removal by the knife, that is that it can be applied to nerve, artery, etc., when removal by the knife would not be indicated.

In cases of malignant disease which are hopeless, if an opiate is given, what does it do? It will relieve the pain for a short time only and at the same time stop all the eliminating organs; this is always contraindicated. The x ray will often relieve the pain without this.

DISCUSSION.

Dr. McGill, of St. Joseph: I have used the x-ray in the treatment of carcinoma for the last few years, and in all cases of epithelioma I have had good results; but if in any case of carcinoma I have been able to benefit the patient, I have never found it out.

Now, in regard to malignant conditions, it is a deplorable fact that the number of people dying from malignant growths has increased from year to year. The statistics, as we had them in 1840, showed that one person in 129 died from some form of malignant disease—of cancer; in 1900 one person out of every 23 died of some malignant condition. This shows conclusively that we have not found a cure for cancer yet, that with all our treatment we are at least deficient, and it yet remains for someone to discover something

that is better than anything we have found in the past. As far as the x-ray is concerned, in treating superficial epithelioma it cannot be beaten, in my estimation, but as far as sarcomas and carcinomas are concerned, I have had no success with the ray. I will give one case: A man, 64 years of age, with epithelioma under the eye. There had been a wart there for quite a number of years, which began to grow, showing an inflammatory condition. I gave it a 15 minutes exposure with the tube 12 inches from the growth, and if I remember rightly, I gave this man some eight exposures, and got quite a little burn—what is called an x-ray burn—and stopped. Later on, I gave him two more exposures in the course of a couple of weeks, and the growth disappeared. The number of treatments varies with the case in hand.

Dr. W. L. McBride, of Kansas City. I listened to a discussion on the treatment of malignant growths, in Chicago, at the Dermatological Association, "Has the X-Ray been Efficient?" The conclusion was that its action is nil in all cases of carcinoma, excepting cutaneous epithelioma, and that most all cases of epithelioma of the lower lip should be given over to the surgeon. The latest findings show that there is some difference between cutaneous carcinoma and internal carcinoma. The x-ray may be able to cope with the cutaneous carcinoma, but not with the internal carcinoma. The ray does not penetrate the deeper tissues with any effect. If a case of internal malignant growth comes to an x-ray man, he should turn it over to the surgeon. If the surgeon says it is inoperable, he may return it to the x-ray man, for the analgesic effect of the ray; but it has no permanent effect. It is not advisable for the x-ray man to treat carcinoma of the breast. You hear often that the ray produces metastasis. That I do not believe; but I do believe that if the x-ray man uses the ray on a nodule in supposed carcinoma, he simply defers what the surgeon must eventually do. I have seen in Chicago splendid results following breast amputations for carcinoma and then the use of the ray. Whether it was from the operation or from the ray, I do not know, but I give the surgeon the benefit of the doubt. So I say that the ray is efficient in all superficial epitheliomas involving any portion of the skin excepting the lower lip. Those cases belong to the surgeon to be removed, and then the ray can be applied.

Dr. Pearse, of Kansas City: I never saw but one case of lenticular carcinoma. A most estimable woman came to me with carcinoma of the breast. It was removed, and some involvement was found in the axilla. The case was x-rayed for two months. The patient passed 18 months of health. Suddenly, in the neighborhood of the scar, a rash appeared, and in 24 hours the nodules were as large as small garden peas, 15 or 20 of them, hard and round. I did not suppose it had anything to do with malignancy, but it did not get better, and after two weeks I had two of the dermatologists of Kansas City see it, and they pronounced it lenticular carcinoma. The woman went to the hospital, and all the infected portion of the skin was removed,—about three or four square inches, and new skin grafted. Within three weeks the skin-grafts had healed, and the skin of the breast was closing over, when to my chagrin another patch as large as the palm of my hand appeared under the collar-bone. The lady at once submitted to the removal of this patch, after having again consulted one of the dermatologists of Kansas City and a surgeon of St. Louis. The wound was again skin-grafted, and the skin-grafts again healed. With the last attack, she had a violent attack of erysipelas of the leg, just as she was leaving the hospital. A week ago she got over this attack of erysipelas, when to my consternation I found a patch half as large as the palm of my hand, near the breast,—again a lenticular carcinoma. That

patch occurs in every case in twenty-four hours' time. We are accustomed to expect carcinoma to be a slow process. In the three attacks of carcinoma mentioned above, the attack appeared in a period covered by forty-eight hours, and did not recede or change thereafter, except that each nodule slowly enlarged and became hard and darker in color. This case I was preparing to submit to x-ray treatment on my return from this Association, and I was surprised to hear Dr. McBride say that there was no use in treating by the x-ray carcinoma below the lower lip.

Dr. C. H. Suddarth, of Smithville: My experience with the x-ray has been rather limited, but I have treated five cases of epithelioma with the x-ray in the last eighteen months, one in the corner of the eye, one below the eye, another one on top of the nose, and two on the ala of the nose. The one that gave me the most trouble was the one in the corner of the eye. I discharged the man, and told him that he was well, but that I would like to watch his case, and about four or five months afterwards it returned. There was a little pimple that came back, and I gave him a few more treatments, and the small nodule came out. I want to say that I believe, from the limited experience that I have had with the x-ray, that we quit treating these cases too early. A man should keep his cases under observation, and treat them at longer intervals, with a softer tube, and with the tube at a greater distance from the seat of trouble than he would in the active stage. That has been my experience, that by doing so you get better results, and more permanent results. If you get your light too close you simply get a healing over, and you do not reach the deeper structure.

Dr. Scott, in closing: The first consideration of any case for the treatment of the x-ray is, can you get sufficient rays to that part to affect it? If you cannot, then of course there is no use in making the attempt. But in those cases in which you can, you may have good results. For example, in carcinoma of the breast I have had some good results, and some of the cases I know were malignant; some of them may not have been, and some may. It is often a hard matter in the early stages to tell whether they are absolutely malignant. Eighty per cent. of all growths in the breast are malignant. One reason we did not get good results years ago was because patients were not willing to submit to the ray at an early stage, and those treated were nearly all cases which were beyond hope by any means whatever. In the last few years, we have been learning how to better apply the ray. We know now what effect it will produce. We know something of the effect of the ray in its different doses. We cannot, of course, say, in applying the ray to different cases, that a certain case will take a certain dose, but we have to experiment with each and every case, and find the dose suitable for each one. This may take three or four days, or three or four weeks. Some people will take a large dose, while others will take only a small dose. It is important to give the correct therapeutic dose.

RESPONSE TO ADDRESS OF WELCOME.

BY W. B. OUTTEN, M. D., ST. LOUIS.

It has been seen fit by the executive committee of the Missouri State Medical Association, to celebrate in an appropriate manner the semi-centennial meeting of the State Medical Association. The growth of the Missouri State Medical Association has been erratic and varied; it was not endowed from the beginning, and its consequent course with unruffled and uneventful progress, like that which existed in many of her sister states. Its course and progress became erratic through a series of potent and tragic events beyond the power of man, community, or nation to forestall. In 1837 the physicians of St. Louis obtained a charter from the legislature under the name of the Medical Society of the State of Missouri. The provisions of which were sufficiently broad to embrace in its membership the entire profession of the state, but unfortunately for the advancement of medicine in Missouri it remained local in its membership and influence. From 1837 to 1849 the medical profession of the State of Missouri remained without an efficient and permanent union, it possessing no organization looking to its future improvement and protection. The members of the medical profession of Missouri attended a meeting of the American Medical Association at Cincinnati in 1849, and learned to their chagrin and humiliation that Associations embracing the medical profession in the various other states were in operation, while Missouri and Arkansas alone were unorganized. This condition of affairs, its progressive members felt that it was a mistake for the state to permit it to remain in that condition. Accordingly a committee of Dr. Wm. M. McPheeters, Dr. John B. Johnson, Dr. S. Gratz Moses, Dr. Geo. Engelmann and Dr. Geo. Pim, issued a well-worded series of resolutions to the medical profession of Missouri.*

It will not be inappropriate at this time to quote these resolutions, since they indicate how broadly and clearly they deemed the duty demanded of the medical profession of the State of Missouri.

The following circular was issued in 1849:

“Whereas, In the opinion of the Society, (this I presume refers to the Medical Society of the State of Missouri) the time has arrived when it is both expedient and desirable to unite the medical profession of the State of Missouri for the purpose of mutual improvement and protection. Be it

Therefore, Resolved: That a committee be appointed to address the regular members of the medical profession throughout the state inviting them to meet in general convention in the City of St. Louis,

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

on Monday, the fourth day of November, next, for the purpose of forming a State Medical Association, with auxiliary societies in each county of the State. The undersigned committee appointed to carry out this resolution, presuming that the objects for holding the proposed convention must be apparent to every one, take this method of addressing you on this subject and soliciting your co-operation. The medical profession of Missouri has been for too long a time indifferent to the many and great advantages to be derived from an efficient State organization, and whilst in other sections of our country under the influence of such societies the happiest results have been obtained towards elevating the standard of the medical profession by the united and cordial actions of all its members, we, on the contrary, have been content to stand still and have consequently accomplished but little in the important work of medical reform, notwithstanding we live in an age and in the midst of a community in which the inevitable law of progress is stamped on every one around.

The Committee have, therefore, caused this circular letter to be addressed to the profession throughout the State, calling upon them to hold town, county, or district meetings and to appoint delegates to the proposed convention, and when no such meeting can be held we hope that you will consider yourself a delegate to the same and will use your exertions to extend the invitation to those whom they may not be able to reach, and in otherwise promoting the desirable and contemplated and foregoing preamble and resolution.

The Committee have not thought proper to limit the number of delegates each town, county or district may appoint, but have extended the invitation to every regular practitioner of medicine in Missouri and they hope by these meetings to insure a full representation from all parts of the State."

The first meeting was held in St. Louis in November, 1849. Dr. W. G. Thomas, of Boonville, was chosen president, and Dr. G. B. Alleyne of St. Louis, secretary. Boonville was chosen as the place of the next meeting and the date set for April 21st, 1850. At this meeting Dr. Thomas delivered an address setting forth, with force and ability, the purpose for which the Society was formed and the means necessary to affect the same. The address was listened to by a large audience, composed of citizens, as well as members of the Association. Dr. Wm. McPheeters, who had been a prime mover in the organization of the Association, was elected president. At this meeting a report was made by Dr. D. M. Davidson, of Cole Co., on the Status of Obstetric knowledge and Diseases of Women and Children, and on Surgery by Dr. Jos. Nash McDowell, of St. Louis. Dr. M. L. Linton read a report on Medicine and Dr. John Lawton, on Medical Education.

The Missouri State Medical Association was accordingly organized in 1850, in April, and held meetings annually until 1859 to 1867.

This hiatus of eight long and important years arose from the fact that these years marked the beginning and culmination of our late Civil War. Had the influences of this war ceased with these eight suspended years the Missouri State Medical Association might have had a passing good chance to advance in a normal and proportionate way, but these eight suspended years shamefully marked the time when law and order ceased to exist and when it became again a stable acting power. Missouri being a border state, held a helpless and harrassing position. Outside of her limits her friends in the North might have loved her for her loyalty but it was a weak soul's desire; her friends of the South might have loved her for her past, but her present offered nothing but what utter indifference gave. Missouri was emerging from the impoverishment of war, and that unsettled condition of society which was seamed and marked by thoughts, actions and remembrances, which leave tender spots and scars. These eight years were years when peace, the first of all human blessings, had left the land, and when men's souls became living fire, amidst the booming of guns and revenge a supreme virtue. Harsh and sad as were the influences of the war, still more depressing and nagging were the baneful mental effects upon her citizens. The uncertainties of life, the ill requiting of labor and effort, the meagre rewards of enterprise, the reception by outsiders of any damning and ulterior assertion against the state, kept Missouri in that condition when its citizens became overcautious and pessimistically conservative. Each step they made was considered too long, chance and adventure ignored, business lagged, and energy frequently died in the throes of too much consideration. This is not to be wondered at since the majority of her citizens had lived in Missouri in the young days of her great prosperity, when the state grew in wild and lusty vigor. They had seen a time when hope and fruition filled the minds of all of its citizens, when the commerce of Missouri strenuously and unremittingly extended north, south, east and west.

But all of this was changed, for now the citizens of Missouri saw only too plainly the extent of their injury and the newly-made forces arrayed against Missouri's rapid progress as it was in former years. It appeared to the impatient lover of Missouri that every element of growth and preferment went to the States north, east and west. Hosts and troops of hardy, vigorous and competent men filled these states. Industrial organizations seemingly vied with each other in proclaiming these states' exalted virtues and the upbuilding of their productive domain. To him, this impatient lover of Missouri, it seemed manifest that capital, manufactories and industrial organization had leagued together to the undoing of his own state, and the upbuilding of the others. Certain it is that for a long time the mal-effects of alien assertion had such power as to make immigrants pass through and ignore a more productive and better territory for an in-

ferior one. A state's reputation unfortunately is not always in its own keeping, since it often lies at the beck and call of designing men; for true it is, that in these days of newspaperdom even states may be so advertised as to be esteemed either for the merit they have not yet obtained or for that they no longer possess. The discontented capable and honest citizens of a state are among the surest and best way to reach progress and advancement, for now it has become apparent that our state has been superior to her misfortunes and assumes her rightful position in the onward march of progress; but much has to be done for the advancement of sciences, literature and the liberal pursuits. Full well do we know that their progress and development does not depend upon an abundance of the state's revenues, nor does it depend upon the stateliness and grandeur of its public and private buildings, and much less does it depend upon the number of its self-aggrandizing millionaires, since the advancement of science, literature and the liberal pursuits must ever depend upon the number and capacity of its cultivated citizens. In proportion to the extent of their education, enlightenment and worthy character, comes the compelling merit of their achievement. Genius, talent, and worthful character have no confining barriers in this country. Throughout the length and breadth of this great land there has ever been the man for the occasion. Yes, a man thoroughly gifted with the instinct of enterprise possessing free and harmonious play of exalted function and seemingly superior to surroundings and circumstances.

But, gentlemen, the past was much, but the present is more. Doubt it not, the present is man's acme of life, that glowing, stinging part of life, the real creator of action and effect. If we are true to our present, our future success is reasonably sure, since the present indeed makes man a potent fact, a rare determining force of the world. Notwithstanding the set-backs and buffets which medical state organizations have received in the past, we have indeed much which we can be justly proud of. Let me quote from Broughem, for old though this assertion may be, it yet fittingly hits the situation at the present time. Thus he says: "There have been periods when the country heard with dismay that the soldier was abroad. That is not the case now. Let the soldier be abroad. In the present age he can do nothing. There is another person abroad—a less important person in the eyes of some—an insignificant person whose labors have tended to produce this state of things. The schoolmaster is abroad and I trust more to him, armed with his primer than I do to the soldier in full military array, for upholding and extending the liberties of this country."

On every side of us education unfolds itself and reflects its comprehensive power in advancing science, art and literature. The scientific accomplishment of the members of the medical profession of the state, when you consider the potent and compelling hindrances to

advancement, is one that any state should be proud of. It will not be out of place to mention the most prominent and important works done by its various members in the past:

Dr. Geo. Engelman, of St. Louis, the father of Dr. Geo. Engelman, Junior, gained a world-wide fame as a botanist, and his records of meteorological observations kept by himself for over fifty years, are quoted by scientific authorities in Europe and in America. The scientific labors of Dr. Adolf Wislizenus in botany and meteorology were largely quoted and used in all civilized countries. His report on the flora and fauna of Mexico was received with favor by the United States Senate. Dr. Adam Hammer wrote a commendable brochure on the diagnosis of occlusion of the coronary artery; two cases were reported both of which were verified by postmortem. His labors in plastic and operative surgery were received with notice and favor by the scientific world. Dr. Benj. Schumard was known to the scientific world at large in consequence of his reliable and extensive report upon geology and paleontology; his work was highly commended by such authorities as Sir Chas. Lyle of England, and Edward DeVerneil, of France. The contribution of Dr. John W. Waters, of St. Louis, to the Conservation and Correlation of Forces, especially their relation to physiology, commanded almost universal, scientific notice. His work received a special notice from Carpenter, the great English physiologist.

Permit me to give the following list of books written by Missouri doctors:

The Theory and Treatment of Fevers, by Dr. John Sappington, Cole Co., Mo.; A Practical Treatise on Diseases of the Eye, by G. B. Carter, M. D., edited with additions and test types, by John Green, M. D., published in 1875. Outlines of General Pathology, by M. L. Linton, M. D., St. Louis. Lectures on Diseases of the Nervous System, by J. K. Bauduy, St. Louis, published in 1874. Anomalies and Diseases of the Eye, by Flavel B. Tiffany, A. M., M. D., Kansas City, Mo. Reports on Yellow Fever, by W. Hutson Ford, M. D., St. Louis, 1879. Prolapse of the Umbilical Cord, its Causation and Treatment, by Dr. Geo. Engelman, of St. Louis, 1874. The Nurse and Mother, by Wm. Coles, M. D., St. Louis, 1882. Lectures on Orthopedic Surgery, by Dr. L. Bauer, St. Louis. Diseases of the Ear, by A. D. Williams, M. D., St. Louis. Ophthalmology for the General Practitioner, by Adof Alt, St. Louis. Chemistry, a Text Book, by Dr. Chas. Curtman, St. Louis. A Text Book on Dermatology, by W. H. Hardaway, M. D., of St. Louis. A Work on Nervous Diseases, by Chas. H. Hughes, M. D. A Text Book on Diseases of the Skin, and several chapters in the Medical Text Book of Genito-Urinary Diseases, and Syphilology and Dermatology, by Dr. Joseph Grindon, St. Louis. Lessons on the Eye, a text book for Under-graduates, by Dr. Frank H. Henderson, St. Louis. Fractures and Dislocations in Hernia, chapters of which were

published in various encyclopedias, by H. H. Mudd, M. D., St. Louis. Ophthalmology for the General Practitioner, James Moores Ball, St. Louis. A highly commendable and most excellent work which has been commended by all surgical authorities entitled, A Manual of Operative Surgery, by J. F. Binnie, of Kansas City. Edw. W. Schauffler, of Kansas City, was one of the translators of Ziemssen's Encyclopedia of Medicine; he also contributed a number of articles to Wood's Reference Hand Book of Medical Sciences. Text Book on Genito-Urinary Surgery and Venereal Diseases, by Dr. G. M. Phillips of St. Louis, and Prostatic Hypertrophy from every Surgical Standpoint, by the same author. Diagnosis and Treatment of Diseases of the Rectum and Anus, by S. T. Gant, M. D., Kansas City.

In the field of surgery Missouri has given a number of names which stand high in operative work and who gained more than a national reputation: Dr. Joseph Nash McDowell, the founder of the first medical college of Missouri. Dr. Chas. A. Pope, a surgeon of rare ability, whose influence upon the medical student of the state was lasting and beneficial. Dr. John T. Hodgen, the inventor of Hodgen splint, made for himself an international reputation. Dr. E. H. Gregory of St. Louis whose high reputation, grand, moral and useful character made him eminent. In the way of scientific work, brilliant, and daring surgery, the record of Missouri stands well to the front, and it is with especial pleasure that I am able to place for your notice the successful labors of our modern surgery. Dr. J. B. Jackson, of Kansas City, revised the technique of breast amputation and so beautiful and effective was the device, that now it is generally used. Dr. Henry H. Mudd devised the original intestinal anastomosis, quoted largely in Europe. Dr. H. C. Dalton, of St. Louis, was one of the very first surgeons to suture a heart wound. Dr. Campbell, of St. Joseph, did a lot of original work in the suturing of arteries, which must be placed upon the plane of high scientific attainment. Dr. H. L. Neitert, of St. Louis, was the second person to have made a successful heart suture. Dr. H. Tuholske, of St. Louis, performed the first successful operation for gastro-enterostomy and pylorotomy for carcinoma of the stomach, on March 29, 1890, published in the *Medical News* of May 10, 1890. Dr. John Young Brown's work and results in septic peritonitis stand among the best and finest results accomplished in surgery. Dr. Vilray P. Blair devised a new form of nephropexy, a most successful procedure. Dr. Eugene C. Gehring, devised a pessary which is largely used throughout the world. Dr. Francis Reder, of St. Louis, was the first to use air bags in intestinal anastomosis. Dr. John Bryson devised a new operation for prostatectomy, which has been successfully used. Dr. A. V. L. Brokaw devised segmented rubber rings in the use of intestinal anastomosis. Dr. John Engelman, Jr., devised obstetrical forceps which are of positive merit. Dr. M. G. Seelig, of St. Louis, has devised a new form

of anesthesia, which has given successful results and promises well for the future. Dr. W. S. Deutsch devised an anesthesia outfit, which is largely used in Europe. Dr. Willard Bartlett devised a new animal suture which is generally adopted by the best surgeons of the country. Dr. Walter B. Dorsett inaugurated the utilization of round and broad ligaments in supra-vaginal hysterectomy. Dr. Schiefferstein, of St. Louis, the first investigator who discovered the gonococcus. Dr. Peter Potter, the exact reconstruction of the organs from sections of formalin hardened material. Dr. H. W. Loeb, Studies of the Accessory Sinuses of the Nose, a very exhaustive and scientific paper. Dr. N. B. Carson was the first to describe the cracked-pot sign in hydrocephalus, so-called McEwen's sign. A series of experiments upon cadavers with Krag-Joergensen rifles of the U. S. Army, and Lee rifles of the Navy from one to two thousand yards, showing the destructibility of the bullet on loose earth, by Dr. J. D. Griffith, of Kansas City. In 1877 he was the first to perform in St. Louis the operation of resection of a rib for the treatment of an empyema—an operation now one of the recognized procedures. In 1883 at the meeting of this Association, which was held in Mexico, Missouri, he reported the first case of gastrostomy as a palliative measure in cases of malignant stenosis of the oesophagus, and in 1889 he popularized the operation of wiring of the patella for fracture produced by indirect violence, and reported a series of cases and the results obtained to the National Association of Railway Surgeons.

It certainly seems to the writer that the progress of the profession in Missouri, when you consider the difficulties under which it has labored, has been active and efficient, and accomplished work of which any state may be proud.

Finally, let me speak regarding the present position of the State Medical Association. In 1903 a new constitution and by-laws were adopted. The work done for 1902 has been wonderfully effective. The work of organizing the county medical society has been prosecuted with such success and vigor that with the adoption of the new constitution in 1903 the membership increased from 150 to 2,400, with nearly fifty counties in affiliation.

Having these facts before us we certainly can make the assertion that most of these organizations in the Union cannot show any more effective officers. They are persons who do not know how to waste time, but whose shiboleth is "onward"; and should this work continue as it has done in the past, Missouri is destined to see as broadly efficient and as completely successful a state organization as exists in any realm, state or union.

AUTOINTOXICATION.*

BY JAMES HANKS, M. D., BRASHEAR, MO.

Autointoxication is a condition of the blood producing a variety of morbid phenomena, caused by the absorption or re-absorption of poisonous metabolic products generated within the body; it is a prolific cause of chronic diseases, especially the functional disorders. The toxic derivatives are the etiological factors in many chronic diseases, and are derived from products of the physiological digestive secretions and fluids of normal products of digestion and of abnormal products of bacterial disintegration of normal food.

The toxic character of these derivatives has been demonstrated by the effects produced on the lower animals that were inoculated with them. Bouchard and his pupils performed many interesting experiments in demonstrating the varying degrees of toxicity of the several excretory products. The symptoms varied from a mild restless condition, with exacerbation of the temperature and heart action up to tetanic spasms, resembling those produced in children by intestinal troubles, and death was produced in many cases when the amount injected reached a certain quantity as compared with the weight of the animal. They demonstrated that the toxicity of the urine varied from day to night in the varying conditions of health; also the modifying influence of antiseptics and of the lessened toxicity after filtering through charcoal.

Absorption of toxins from the alimentary tract are the cause of many nervous phenomena and functional and chronic disorders. Experiments have demonstrated that the derivatives from feces are energetically toxic; as shown by Bouchard, the intravenous injection of an extract of feces in a rabbit require but a small amount to produce convulsions and death.

Physicians are familiar with the fact that in patients who have intestinal obstruction, there are shock and a series of symptoms, which neither the congested bowel nor the blocking of the alimentary canal fully explains. The prostration and collapse are profound and can only be explained by the absorption which evidently occurs, producing an autointoxication from the putrefactive alkaloids formed in the mass feces which cannot be eliminated.

In pregnancy are formed toxins and poisons producing the chain of symptoms so often observed by all of us and often ending in eclamptic convulsions. Whether this autotoxemia, as claimed by Lorenz, is due to acetone formed in the intestines, or, as stated by Stumpf and Stolz, to increased destruction of fat in the maternal organism, has not been

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

definitely determined. We know, however, that the poison, whatever it may be, circulates through mother and fetus and upon the mother is thrown the burden of eliminating by the various excretory organs, as kidney, liver, intestine, skin and lungs, the poisons formed by the metabolic process occurring within two organisms. When elimination is not complete, we have disturbances varying from heightened arterial tension, headache, gastric disturbances, to convulsive seizures of puerperal eclampsia. The urine, when these conditions prevail, usually contains albumin. Errors of diet are, no doubt, a contributory factor in many indispositions due to autotoxemia; usually with a proper dietary and elimination we find symptoms vanish and improvement occurs.

Recently special prominence has been given to acute intestinal autotoxemia. This is often due to improper foods or putrefaction from non-digestion. The digestive juices fail to transform the food; parasitic ferments develop; toxins produced from these fermentations are re-absorbed; from this are produced many of the ills which we daily meet in our work. We see this form of the trouble most frequently in bottle fed babies, where proper care and knowledge are not exercised in the preparation of their food.

There are a number of morbid phenomena arising from chronic intoxications, having their origin in the intestinal canal, especially in the dilated stomach; in fact, a large percentage of chronic ailments are due to this cause alone. This condition exists in many of our patients without being suspected; it usually exists for a long time before the commencement of the disease with which it is associated and often passes unrecognized, except by developing its physical signs, and often the symptoms of which the patient complains are not of such a nature as would lead us to look for this condition. It often exists without causing unusual sensations, dyspeptic or gastralgic symptoms.

We see its manifestations in many skin diseases—eczemas and urticaria are common examples that have doubtless been observed by all of us.

Asthma has in some instances been attributed to toxemia, especially those forms exhibiting periodicity. Dr. Jas. Adam has made numerous observations in regard to the relationship between asthma and excess of uric acid and says that there is produced a convulsive or spasm-producing toxin which explains the paroxysmal attacks of difficult breathing that sometimes occur during the night. Often the cause may be traced back to some improper diet taken the day before. There are many other conditions that may be due to this cause.

Elimination by the various means at our disposal with antiseptics and a proper dietary regimen are the best means of relieving the condition.

DISCUSSION.

Dr. J. M. Allen, Liberty: Acute autointoxication may be found always originating in the upper intestinal tract. The more chronic forms of auto-intoxication always originate in the larger intestines, particularly associated with displacement of the sigmoid flexure. This displacement is almost always present in constipation and this results in autointoxication, so that there is a wide field for investigation. There is hardly a month that I don't see cases of autointoxication that may be associated with the kidney. Toxins that occur in connection with pregnancy must be watched for very closely. Autointoxication that has its origin in the kidney may be due to almost any disease of the kidney. Faulty metabolism and disease of the kidney mean, to my mind, practically the same thing, so far as treatment is concerned. As to the antiseptics, I want to call attention to the great value of urotropin, and methylene blue compound. We may say that we have no form of autointoxication that is not associated with some form of germ life, and such conditions are usually the result of kidney disease, so that you will get good results from a urinary antiseptic.

Dr. J. R. Buchanan, Nevada: I think that the question of autoinfection, or toxemia, is not entirely covered so far as treatment is concerned, by the eliminative process. One of the speakers says that by elimination through the bowels you don't get rid of this trouble. That is true, for the reason that you have only half administered your treatment. So long as you allow the cause to exist so long will the effect follow. In the elimination he speaks of, he is treating the effect and not the cause. He removes a portion of the poison by elimination, but the treatment in these cases is not so much in elimination as in the arrest of the formation of the poison. If the treatment of elimination is at the same time accompanied by the removal of the cause, you will cure the disease. There is no more important question before the profession today than that under consideration. I believe with the essayist that a large percentage of diseases have their origin in autointoxication, and to reach them we must arrest the fermentative process as well as eliminate the products.

Dr. J. B. Norman, California: If elimination could be carried out perfectly we could cure these cases, but the trouble is that there is frequently a dilatation of the colon and sigmoid making it impossible to keep them clean, and a residuum of feces keeps up the trouble. I don't believe in saddling everything on the blood. We should aim to prevent the absorption of the poisonous products into the blood by keeping the alimentary tract as clean as possible.

Dr. P. C. Scholz, St. Louis: I agree with what has been said, but believe you are dealing with effects. The best I can say is to avoid it by the education of the people. The people live wrong, in wrong surroundings. They are not clean, foods are not properly prepared. Those of you who work among people who are employed in mills and factories know that their hours are long, they are compelled to eat rapidly, have but little time for recreation and of course they are neurasthenic. An important fact is what they eat, as well as how they eat it.

Dr. C. W. Reagan, Macon: I want to call your attention to autointoxication in pregnancy. I have a case on hand now; a young woman of 20 has developed a rapid pulse and high temperature, and this is the culmination of a condition that has been coming on for weeks. She is six months pregnant. Now what are we to do with this case? Remove the exciting cause of the trouble or let it run on until she has convulsions? I would suggest the elimination not of the foetus but of the toxins by way of the

excretory organs—the kidneys, the liver and the skin and leave the evacuation of the uterus as a last resort. Deplete the circulation and lower the blood pressure with cathartics, diuretics and diaphoretics and compensate by the use of normal saline solution.

Dr. Hanks, in closing: Elimination by the alimentary canal is not the only means at our command. The various baths which stimulate the skin will relieve a large per cent. of these patients, aided by the use of antiseptics which help materially to reduce the production of the toxins. While you cannot render the intestinal canal aseptic you can decrease the toxic products very materially. Whenever you stimulate the excretory glands you lessen very materially the faulty conditions which prevail.

BLOOD PRESSURE AND ITS RELATION TO DISEASES*

BY FREDERICK W. FROEHLING, M. D., KANSAS CITY, MO.

Blood pressure, and especially increased blood pressure, has, in late years grown to be of great importance to the clinician as well as the physician at large. In earlier days, only the physiologist endeavored to ascertain the blood pressure, and had devised complicated apparatus and methods for this purpose. These methods could easily be used on dogs and other animals, but not on human beings. Pathology, therefore, derived very little benefit from these researches and only when Von Basch in Marienbad, Austria, invented a simple and handy apparatus which could be used on persons, did pathological blood pressure become of more and more interest to physicians. Since the days of Von Basch there have been a good many other instruments gotten up for the same purpose, and based on the same principal.

The best known of these are those of Von Basch, Riva-Rocci, Gartner and Sahli. I, personally, have used Sahli's instrument, which combines the advantages of that of Von Basch, as well as that of Riva-Rocci. The clinicians who made researches in this direction were, for a good many years, only interested in increased blood pressure. Von Basch, the father of these investigations, already found two great groups of diseases, which are accompanied by a very significant increased blood pressure—nephritis and arterio-sclerosis.

The increased blood pressure in the different forms of acute and chronic Bright's disease, and especially in interstitial nephritis, is today an everywhere recognized symptom of these affections. Even acute infectious nephritis, for instance from scarlet fever, has a marked increased blood pressure. This is so regular that Riegel could diagnose an impending nephritis with certainty, at a time when the urine did not show any signs of kidney disturbances. In the hemorrhagic forms, Neu and Buttermann found highly increased blood pressure. In cases of acute nephritis from poisons, for instance arsenic or phos-

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

phorus, the blood pressure is a normal one, according to Krehl; the same is the case in amyloid degeneration of the kidneys. The greatest increase of blood pressure we find in chronic interstitial nephritis, and this symptom is so marked and so certain that I must attribute the same importance to it, as we do to the findings in the urine. In the beginning, this increased blood pressure might be very light, might even only reach the upper region of the normal, but as the disease progresses, the blood pressure goes up higher also. This is such a general experience that I might call it an established fact. The cause of this symptom is perhaps easy to understand. The retention especially of stuffs of the N metabolism in the blood causes a general contraction of the arteries, and consequently, the increased blood pressure. The more the kidneys are diseased, the greater the retention of these stuffs will be, and therefore, the blood pressure increases in proportion. There is still another factor in the production of this symptom, and that is the difficulty of the circulation inside of the diseased kidneys. The more glomeruli that are destroyed the greater the destruction of blood vessels in the cortical region also, and the circulation has to seek new passages. The blood rushes through the medullary region, with increased rapidity, and the consequence is the production of an increased quantity of urine of low specific gravity.

During the last few years I have learned to value the symptom of increased blood pressure in chronic interstitial nephritis, so highly that I would no more think of omitting to take it, than I would omit examining the urine. In a number of cases, the sphygmomanometer was the deciding factor in determining whether Bright's disease existed or not.

Only the other day, a woman of thirty-five years was sent to me with the diagnosis of "kidney trouble". Patient is five feet two inches tall and weighs 185 lbs. She has a fatty heart. Repeated examinations of the urine showed no albumen, but the presence of a good many spurious casts (mucus casts). The patient is, without any doubt, of that build which often produces Bright's disease. I had to ask myself whether this wasn't one of those case of interstitial nephritis, in which albumen and casts are rarely found. The difficulty was increased by the fact that the urine was quite diluted each time we examined it. The blood pressure alone gave us certainty. Sahli's instrument showed a pressure of 120 mm. I might remark here that the normal blood pressure in the Sahli instrument is a little higher than in other devices, ranging from 110 to 150 mm. This low pressure excluded the diagnosis of Bright's disease at once. On the other hand, I have often been able to make this diagnosis before I had examined the urine.

I cite, for instance, the case of a gentleman of fifty-two years of age. He came to me complaining of frequent headaches and other disagreeable feelings, which he was unable to define. The patient is

rather a florid complexion, pulse hard, second aortic sound accentuated. Left heart a little enlarged. Blood pressure 250 mm. These symptoms made me feel sure that I had a case of chronic Bright's disease to deal with and the examination of the urine only verified my diagnosis. But I have learned to value the use of the sphygmomanometer, not only for diagnosis, but also for prognosis, in Bright's disease, and this is a point which I have been unable to find mentioned in literature. I therefore draw the attention of the practitioners especially to it, believing that a good deal of advantage will come out of it, if it is generally recognized. I wish to state here, that I regard a case of comparatively low blood pressure, as having much better prognosis than one which has a high one.

If this low pressure continues for a long time or increases only very slowly, I know that this patient will live quite a number of years yet. As an illustration of this statement, I want to refer to the case of a lady which has been under my observation for nearly seven years. The highest blood pressure I ever obtained in this case was 170 mm. but as a rule it is 150 and 160 mm. The patient is practically in the same condition she was six years ago. The disease makes very slow progress and under a sensible dietary regime she feels comparatively well. I know that, in the end, the patient will die from her affliction, but she still will have a goodly number of years to live, if nothing else occurs.

As to the diagnosis of Bright's disease, there can be no doubt whatever, in this case.

In contrast to the latter case, I will again refer to the one of the gentleman with a blood pressure of 250 mm. This patient has a pressure above the normal upper limit of 100 mm., that is, nearly twice the normal amount.

It seems self-evident to me, that the heart will not be able to stand this tremendous strain for a long while. The affection is evidently about two years old. The rapid progress of the disease, in connection with the high blood pressure, make me believe that that man has only a very few years more to live.

The investigations concerning the relation between blood pressure and arteriosclerosis are not finished yet, and physicians, the whole world over, make valuable contributions toward the solving of this problem. Von Basch was the first one who made investigations in this line, and I must say that the conclusions at which he arrived are still held as correct by a vast number of scientists to-day. He found that, in many cases in which nephritis couldn't be diagnosed, the blood pressure was exceedingly high. He saw in this a symptom of arteriosclerosis, or angiosclerosis, as he called it, even at a time when other symptoms were lacking. He, therefore, put the increased blood pressure into the center of the whole pathology of arteriosclerosis. In his investigation, von Basch often observed that this high degree of blood pressure was not a permanent one, but that it varied and under sensible treatment, it often

returned to a normal state. He, therefore, saw in the condition a very delicate reaction of the vaso-motor centers, and called it pseudo or spastic angio-sclerosis. In this stage, anatomical changes are not present in the blood vessels,—especially the smaller vessels are in such a state of contraction that they give the left heart a great over amount of work to do. This contraction, and the greater tax on the heart constitute increased blood pressure. The investigator found this trouble often in cases of pronounced neurasthenia, and especially in individuals with bad habits, (alcoholism, abuse of tobacco,) and in individuals who are subject to great nervous excitability. As we all know, such patients suffer from an unbalanced blood pressure. If these conditions only prevail temporarily, or can be gotten rid of, they won't make any changes inside of the blood vessels at all; but if, as is often the case, the patients keep up their old way of living, etc., the condition will lead to a pronounced general arteriosclerosis, and, perhaps, later on, to nephritis. The Frenchmen, and especially Buchard have accepted these theories and distinguish between a pre-sclerotic state, which corresponds with the spastic angiosclerosis of von Basch, and a state of developed arteriosclerosis. I consider these teachings of von Basch correct, as far as the angiosclerosis of the smaller blood vessels is concerned, which he, with full intention, brought into contrast with the developed atheroma of the larger vessels. Later investigators, and especially the French, have tried to apply the teachings of Von Basch to arteriosclerosis in general. They affirm that general arteriosclerosis is always accompanied by high blood pressure; and here is where they are wrong. Krehl, Romberg and a number of others have found that in the majority of these cases the blood pressure is an absolutely normal one. This corresponds with my own investigations, but on the other hand, I must say that there are a good many cases of arteriosclerosis in which the blood pressure is increased. The reason for this variation is not known as yet. Krehl thinks that the blood pressure is higher in cases where the ascendant aorta and the splanchnic vessels are affected, but Geisbeck reported a case where these very vessels were found to be greatly affected, but where there was neither an increased blood pressure intra vitam, nor was a hypertrophy of the left ventricle found at the postmortem. French physicians have recently tried to introduce the "essential increased blood pressure" and their journals are full of observations on this subject. They have in mind a condition of increased blood pressure, without arteriosclerosis and without nephritis. This especially they call "hyper-tension artirielle", and they are trying to demonstrate a new disease, in which the increased blood pressure is the main symptom. Endogenic and exogenic toxines are given as the causes of this disease. They name, alcohol, lead, tobacco, etc. on the one side, while on the other hand chronic constipation and dyspepsia, with the formation of poisonous stuffs are said to produce the condition. These symptoms then lead later on to general arteriosclerosis

and Bright's disease. By looking over the French literature, we readily see that these investigators are talking about the identical condition which von Basch described already a long time ago, under the name of spastic angiosclerosis. My own experience teaches me that this affection (whether you choose to call it spastic angiosclerosis or arterielle hyper-tension is immaterial) is not a rare one. The most remarkable case I have seen in this line is that of a boy of twenty years, who has been under my observation during the last two years. When the patient first came to me, he was a perfect picture of an extreme neurasthenia. He complained of palpitation of the heart, dizziness and blackness before the eyes. Sometimes the eyesight was entirely gone for a short while. Specialistic examination of the eyes showed absolutely normal conditions. Blood pressure, at that time, varied between 160 and 180 mm. The pulse was full and strong but the arteries as yet showed no sign of arteriosclerosis. He had some stomach disturbances (superacidity) and was constipated. The boy attended at that time the Central High School of our own town and his studies increased his difficulties greatly. He soon graduated, and under proper dietary, electrical and water treatment he gradually got rid of his ailments. At the beginning of last winter he went to Ann Arbor to study law; but his stay there was of short duration. Before two months he was compelled to come home. All his old symptoms had returned in a greatly aggravated form. He was in an extremely nervous state. The blood pressure now showed 240 mm. and in both radial arteries pronounced arteriosclerosis was perceptible. It took a good while before I was able to get the patient into a fairly comfortable condition. He isn't entirely well yet,—the blood pressure is still above normal (170 mm.). This case teaches us several lessons; 1st, that the condition which Van Basch calls spastic angiosclerosis certainly exists. 2nd, that arteriosclerosis is not alone a disease of old age, but that it can appear in a boy of 20 years. 3rd, that we ought to place a great deal more importance than we do upon functional troubles. 4th, that functional troubles may sometimes change into real organic ones. I might mention that the history of this boy is absolutely free from syphilis, alcoholism and use of tobacco.

Lately a peculiar disease has come to our knowledge which combines a hypertonia of the blood vessels with a pronounced polycythæmia. These cases are real representatives of *plethora-vera*. The patients have a very florid complexion, the blood seems to always rush to their heads (apoplectic habitus). They have a high blood pressure and a blood count of red cells, sometimes from eight to eleven millions. The patients, in question, are generally over 40 years old. The pulse is full and strong, the vessels of the retina are overloaded with blood. I have only seen one case of this kind, and that in rather a mild form, of a young lady of 20 years, with a blood count of 6,500,000 red cells and a blood pressure of 160 to 170.

When we have spoken of blood pressure in general, we always meant the highest phase of this pressure produced by the systole of the heart. This is called the "systolic blood pressure," and up to the last few years only this was taken into consideration in clinical work. In those classes of diseases we have discussed above, it is entirely sufficient to know the systolic pressure. But now we have arrived at the last group of pathological affections, in which this is not alone adequate. This group is that of diseases of the heart, in which we also have to take the so-called "diastolic pressure" into consideration. It has only been during the last few years that we were able to use this phase of blood pressure in clinical work. Masing, Strassburger, and Sahli, especially the last two, have given us, independently from each other, methods with which we can easily ascertain the diastolic blood pressure also. We can only use the apparatus of Riva-Rocci or that of Sahli which is a modification of the former, for this purpose. The Strassburger method is as follows: The systolic pressure is ascertained as usual by applying the rubber cuff around the arm and pumping it quickly full of air, enough to make the radial pulse disappear. This moment represents the systolic pressure which can be read off from the apparatus in cubic millimeters. The diastolic pressure is taken in the same way only we watch now for the point at which the pulse commences to grow weaker. This is done entirely by palpation with the fingers. Sahli uses the sphygmograph of Jaquet, which writes as well the curve of the pulse, as the time during which this curve is taken. As soon as the curve commences to get lower we have the point of the diastolic blood pressure. The one is the maximal pressure, the other the minimal and the difference between these two phases is called "pulse pressure," by Strassburger. This author had great expectations of the development of our knowledge of heart diseases, by the use of these methods. If not all of these expectations have been realized, at least a great deal of good has come out of them.

The pulse pressure, that is, the difference between systolic and diastolic pressure is under normal conditions 30 mm. Hg. In heart affections it differs essentially. For instance, in cases of aortic regurgitation it varies between 40 and 70 mm. In cases of stenosis of the aorta it is 20 to 22 mm. I have often used these facts for the diagnosis of approaching incomensation as well as for therapeutic considerations. I will illustrate this with a few examples. If we have a patient with aortic insufficiency, or any muscular heart affection, for instance myocarditis or fatty degeneration, and we have a high systolic pressure and also a high pulse pressure, which means a low diastolic pressure, I know that incomensation is not yet present, but will soon come. Sahli calls these conditions, which cannot be felt with the finger on the pulse, "high pressure stasis." And in spite of the full strong pulse, we must give in these cases digitalis, or other heart stimulants. This fact, alone, shows the great importance of the methods under dis-

cussions. But I will go a little further and cite a case which lately came under my observation. This case is that of a lady of 52 years. She had been ailing for about a half a year. The subjective symptoms were general weakness, palpitation of the heart, shortness of breath, and pulsation in both carotids. The examination revealed a full strong pulse, a slight enlargement of the left ventricle and a light diastolic murmur over the aorta. The systolic blood pressure was 240 mm., the diastolic, 220, pulse pressure, therefore, 20 mm. I had here a tremendously high blood pressure during the systole and diastole. Both carotids were highly pulsating and the woman was in a most miserable state. I saw at once that if that heart kept on working under such an enormous pressure, it would soon give out totally. Digitalis, etc., were certainly not indicated as it would only have increased the blood pressure and therefore made matters worse. I put the patient to bed and gave her, for about two weeks, absolute rest. Furthermore, I prescribed a lactovegetarian diet and as I had all reasons to suspect a specific history, I also gave her the new iodine preparation of Fischer, sajodin, which has no bad effect on the stomach whatever and gives an excellent iodine action, only the ascertaining the blood pressure on this case, enabled me to proceed in the right direction, therapeutically speaking, as I could not have excluded, with certainty, the high pressure stasis without the sphygmomanometer. I have not found any similar case mentioned in literature where our instrument played the same deciding role. The patient improved quite rapidly; later on I gave her faradic electricity in the four-cell bath of Dr. Schnel. I can recommend the use of this kind of electricity very highly in cases of extremely high blood pressure. One can feel during the application that the artery becomes softer and the blood pressure much lower than at first and this fact, I have been able to prove several times, directly by measuring the pressure with the Sahli apparatus. Of interest here are, the investigations of Fellner in Nothnagel's clinic with patients who suffered from chronic interstitial nephritis. He found that the pulse pressure in all cases, with compensation, was increased earlier than the systolic pressure. And the further the disease progressed, and the greater the difficulty of heart action, the higher is the pulse pressure, also. For instance, in some beginning cases, he found the systolic pressure to be 100, 120, 130 and 140 mm., with the corresponding pulse pressure of 35, 37 and 38 and 40 mm. But the patients with the higher blood pressure between 135 and 250, had a pulse pressure varying from 47 to 70 mm. This means that the highest systolic pressure has the lowest diastolic pressure in proportion.

During the last year have made use of the Sahli instrument for functional diagnosis in heart cases. For this purpose I used only the systolic pressure. In cases where there was often no perceptible sign of any serious uncompensation, I have comparatively often been able

to force the approach of such a difficulty. I require the patients to go through a certain amount of exercise for this purpose. I have in my office a nebulizer with a hand air pump, which I cause the patients to work for about five minutes. With a normal heart the blood pressure will only increase slightly or not at all. It is the same with a well compensated heart failure, but if the blood pressure goes up more than 20 or 30 mm., I have to look out for trouble. The highest pressure is not found immediately after the exercise, but from one to two minutes later. Any other kind of real exercise would have the same effect. To verify this statement I will refer to a case of a man of 52 years, with a chronic myocarditis. The patient had never had any serious incompensation, but one day the blood pressure jumped, after the above mentioned exercise from 150 to 200 mm., and the next day the first symptoms of incompensation were perceptible, and it took a great deal of digitalis to bring the heart back to its normal state. The pumping never should be done violently.

Fellner and Rudinger published lately in No. 15 and 16, of the *Berliner Klinischer Wochenschrift*, another functional heart test with the use of the sphygmomanometer, on Jaquet's sphygmograph on the basis of Katzenstein's phenomenon. They examined 70 heart patients, and obtained excellent results, but as the Katzenstein method did not prove satisfactory in other hands, we have to wait for further developments.

It is impossible for me to go into detail of the method of these authors, and I refer those who are interested in it, to the article itself.

In conclusion I might say that I have endeavored to give a fair picture of the present standing of the blood pressure question, as far as is possible in the comparatively short time allowed me. I have given you the main points in literature and have tried to broaden them from my own experience in this line. The principal reason for choosing this subject, is that I wish to interest every practitioner in this method of examination, and I hope that my attempt will not prove to be a fruitless one.

DISCUSSION.

Dr. J. R. Lemen, St. Louis: This subject is of great importance not only to the internist but to the surgeon. We will see the day when we will think the sphygmomanometer as important in making a diagnosis as we now consider the thermometer. I have been able not only to make the diagnosis of such diseases as accompany or follow a high blood pressure, but I have been able to prognosticate the outcome by the use of the sphygmomanometer. The importance of taking the systolic and diastolic blood pressure in heart disease is of rather recent development. Sir William Broadbent, of London, has done a great deal of work along that line and read an excellent paper on the subject last year before the British Medical Association. The instrument he has been using is that of Mr. Oliver. It is a simple instrument and one that can be readily used in the office. In reference to the blood pressure in connection with interstitial kidney

trouble, we can often discover the pre-intestinal nephritic state by the use of the sphygmomanometer, and we can expect the development of the disease from this high blood pressure.

Dr. J. M. Allen, Liberty: Whenever a new idea is suggested, I always ask, is it logical? Is it based on truth? And when I decide that it is based on truth, I begin to study it. Now this is a new idea along the line of therapeutics. It applies just as well to acute as to chronic conditions. I have the Oliver instrument and it does good work, and I have many records. All that the doctor says of blood pressure in its bearing on kidney and heart disease I can verify. It will tell you at once the prognosis in many diseases and by watching the blood pressure you will know how to apply your remedies. I have not the fear of temperature that some men have, but blood pressure is a matter of importance and in cases of high tension, by putting the patient on a treatment that will lessen the blood pressure you always bring about good results. I am sorry for the young gentlemen who have come in our profession since the introduction of the thermometer, for they have not the cunning in the sense of touch that the older men have. The first thing that attracts my attention is the blood pressure.

Dr. J. P. Kanoky, Kansas City: The doctor has not referred to the fact that there is a decided difference in the blood pressure, taken when the patient is sitting and when standing, or lying down. The Riva-Rocci is not a costly instrument, is easy to apply and is easy to read. It gives better results than any instrument I know of. By having the patient lie down you get an equalized pressure. It is a most excellent aid in diagnosis. I hope the value of the sphygmomanometer will be further investigated. Its use is still in infancy and we know but little of what we should know of it. As a diagnostic aid in obscure internal diseases.

Dr. Robert T. Sloan, Kansas City: Like the others I was interested in the paper, which shows extensive reading and careful study. This matter of arterial pressure has panned out differently clinically from what we expected. As an illustration I might mention our theories as to the use of iodine in arteriosclerosis. A patient presents himself for examination and we find him suffering from high blood pressure and symptoms of arteriosclerosis. We put him on iodine, which gives prompt relief, and then take his blood pressure again and find it just the same that it was before, or possibly the blood pressure may be 10 or 15 mm. higher than it was before. Now what did it? Evidently the iodine did the work. It relieved the man of his symptoms. Nothing else was done. The iodine was given and the symptoms we have heretofore recognized as those of high blood pressure disappear, yet the blood pressure may have actually increased.

Dr. Froehling, in closing: I have omitted, for lack of time, many facts that I wished to include. One gentleman called attention to the fact that this method is of value in surgery. It is true that it has been used extensively in that line and often surgeons will postpone an operation as a result of the reading of the instrument. Dr. Allen's remarks were of great interest to me. We are only in the infancy of this science and many of the results are apparently at variance. So far as acute diseases are concerned I have not made so many examinations in that line, for I do not see many such cases, but I am sure we will derive some good as a result of the study of it. That we should take the blood pressure in the reclining position is correct. As to Dr. Sloan's remarks, in the development of arteriosclerosis the blood pressure is not an infallible sign. We have not in the majority of cases an increased blood pressure, but in others we do have it. Why

this is the case we do not know. It was thought that, in affections of the aorta or the splanchnic region the blood pressure would increase, but cases have been shown where these changes occurred, yet during the life of the patient there was no increase in the blood pressure, only an enlargement of the heart at autopsy. As to the effect of the iodides in arteriosclerosis, we are still in the dark. They act all right. I cannot say why there was an increase in the blood pressure in Dr. Sloan's case after taking the iodine. As to the action of the iodides, Romberry believes that the iodides decrease the viscosity of the blood in consequence of which the blood rushes more quickly through the arteries, thus preventing the progress of the process. He thinks that the iodides do not have any effect on the arteriosclerosis itself but merely on the viscosity of the blood. On the other hand the authority who gave us the method of finding the freezing point of the blood and urine, Koranyi made experiments with adrenalin and found that it certainly tended to the production of arteriosclerosis, but if, on the other hand, he gave iodine, these changes did not occur, and if they were present there they would tend to disappear under the use of the iodine, thus seeming to indicate that the iodides did have some effect upon the arteriosclerosis itself.

PRESIDENT'S ADDRESS.*

BY W. P. ROWLAND, M. D., BEVIER, MO.

The early practice of medicine was a strange mingling of truth and falsehood, a compound of empiricism and theoretical vagaries, so that in a perusal of the history of the lives of the early teachers we are impressed more with the honor paid to them—the veneration which they commanded—than with their teachings.

And particularly is this the case when we think of the scant courtesy with which the masters of our profession are received in these days of profound scientific research, when operative surgery and preventive medicine especially, are moving forward by leaps and bounds, making evident to the most casual observer the immense benefits to mankind arising from the splendid work accomplished.

During the past century many in the realms of politics, war, the varied industries and sciences have been praised in their day, had honors accorded them and their names handed down in history for the deeds they have accomplished. It is within that time that such great progress has been made in medicine, more, indeed, than in all the centuries previously. But where are the honors which should have come to the tireless workers, the master minds that have pushed dogmatism to the wall and caused medicine to blossom forth as a science?

As a profession we honor and perpetuate the names of such men as Morgagni, who introduced anatomical thinking into medicine; Hal-

*Delivered at the Annual Meeting of the North Missouri Medical Association, Gallatin, Mo., June 20-21, 1907.

ler, who taught the functions of different organs; Hunter, who established pathological anatomy and experimentation; Jenner, who laid the foundation of sero-therapy and Virchow, who fixed the throne of life in the invisible cell.

But these names are little known outside of the profession, and, added to the lack of knowledge of the public regarding our great men of the past, no steps have as yet been taken by us as a nation to honor the living or memorialize the dead heroes of our profession.

Some time ago when the niches in the Hall of Fame—the rotunda of the Capitol at Washington—were to be filled, there was a certain amount of surprise and no little disappointment, in the medical profession at least, that no physicians were included in the list of the chosen. Many of us thought that Rush, Sims and McDowell should have been selected by their respective States, but it was not to be.*

There are no group of men of like importance in our land whose pictures and personalities are so unfamiliar to the public as those of our distinguished physicians and surgeons. And there are no public honors for which they can hope.

Should the pictures of Mitchell, Price, Jacobi, the Mayos, Murphy, McBurney, be printed in our daily papers it is doubtful if one in 10,000 of the readers, barring physicians, would be able to understand, without explanation, to whom they applied. And yet each one has done more for humanity than possibly all of the popular heroes of the day combined.

And if we should present the features of those who have passed away during the past century; men who were the giants of the profession, who were renowned in their day and generation and revered by us, such as Gross, Davis, Hodgen and a host of others; even with an explanation, only a passing interest would be manifested by the exceptional reader.

Doubtless the members of our profession do more for the advancement and welfare of mankind than do all the statesmen and philanthropists combined. Through their efforts, largely, excellent public and private hospitals for the care of the sick and afflicted, have been erected in rapid succession in all our cities and through their services, rendered conscientiously to rich and poor alike, untold suffering and an incalculable number of lives have been saved. Through work done in the silent laboratory our unselfish heroes have won bloodless battles with the most stubborn enemy of man-disease. Through this channel

*In the issue of June 22, 1907 of The Journal of the American Medical Associations, appears the following:

*Honor Physician—The State of Georgia is said to have fixed on Dr. Crawford W. Long, for his pioneer work in anesthesia, as one of the two representatives of that state whose statues are to be placed in the Statuary Hall of the capitol at Washington.

we have been taught how to prevent or check the ravages of that very prevalent and so frequently fatal disease, typhoid fever; erysipelas, formerly the bane of camp and hospital and more dreaded than the enemy's bullets, because of its rapid spread from patient to patient, is now throttled in its inception; puerperal sepsis, the foe of motherhood, which has probably been more fatal than the world's wars, has been conquered to such a degree that it is practically unknown among the younger physicians of to-day; tetanus and hydrophobia with their ghastly records, have been shorn of their terrors and placed among the preventable and curable diseases; diphtheria, which has been as fatal among children as puerperal sepsis among mothers, is no longer dreaded; and infection, the great foe of the surgeon, has been made so harmless through asepsis that the joints and even the large cavities are opened with impunity. Indeed the field of operative surgery has no boundary line beyond which the bold and skilful surgeon dare not hope to go. The central figures in producing immunity from inflammation through the discovery of its microbic cause, which has contributed more to the prolongation of human life and the mitigation of suffering than all previous medical knowledge are Pasteur and Lister, and when coupled with the name of our own Morton, the discoverer of anaesthetics, we have a trinity which constitutes the scientific saviors of the human race.

The public is more familiar with our conquest over smallpox, yellow fever, cholera, and bubonic plague, those pestilential scourges which formerly swept like a conflagration over the world, now hardly known in the advanced countries. Should the barriers placed by our profession be taken down and these scourges allowed to enter our beloved land, the howl of the man whose business would be paralyzed, the lamentations of the sorrowing and the groans of the dying, would be a sad contrast to the present happy conditions.

These conditions are practically all the result of work done by our heroes, heroes as truly as those of war. And yet no recognition by our own people has ever been accorded them.

The conquering of yellow fever is the most recent example. Dr. Reed was the most prominent in this line of research and died while his services to humanity were fresh in the minds of men, while it was realized that the result of his labors was the saving of thousands of lives and untold millions of money, yet that section of the country so greatly benefited begrudged him a monument befitting his worth; the few hundred dollars collected being contributed mainly by physicians.

The name of Dr. Lazear who sacrificed his life in the same cause is unknown outside of the profession.

Dr. Carrol, to whom is due equally with his colleagues Dr. Reed and Dr. Lazear, the honor and appreciation which our country should bestow upon them, was the first to submit to an experimental infec-

tion with the yellow fever infected mosquito and established, through his own illness, the truth now so well known, a truth which has made it possible to build the Panama canal without great sacrifice of life and which when completed will make our government the arbiter of the Western Continent for all time to come. But more than this it has solved the means of keeping that dread disease, yellow fever, from our own shores or, in case of its reaching us accidentally, has taught us how to stamp it out quickly and prevent its spread. During the past winter an effort was made simply to retire Dr. Carrol with the rank of Lieutenant in the United States army, a very modest recognition and return, indeed, for the immense benefits derived from his researches, but if the effort was ever mentioned outside of the professional journals it was not noted by the writer.

Such examples make it questionable whether as a nation we appreciate the work of our medical heroes. In contrast to this notice the result of the recent popular vote in France as to the ten greatest Frenchman of the nineteenth century, when Pasteur led the list. In a similar test in Germany as to the twelve greatest men of the Fatherland, Koch stood third, Von Behring eleventh. Again the seventieth birthday of Von Bergman was made the occasion of a national expression of very real affection. On that day there called upon him some forty delegations containing the Ministers of War and of Education, men notable in the arts, in music and the drama, and the universities were impressively represented. At the death of Von Bergman, Bier, who instituted spinal anaesthesia, was chosen to fill his place as a recognition of his eminent services to humanity.

Roentgen, as a reward for his great discovery, was placed upon a liberal allowance to be paid out of the national treasury, to continue throughout his life.

Comparing these examples with our government's neglect of its medical heroes, the question can be pertinently asked, why we as a nation fail to appreciate the researches and sacrifices of men whose deeds redound so greatly to the welfare of the human family? The answer may be found in a comparison of the political conditions in the two Republics, France and our own Country.

In the Senate of France consisting of 300 members, 40 are physicians; In the United States Senate consisting of 90 members, there is but one physician. In the French Chamber of Deputies, corresponding to our House of Representatives and consisting of 595 members, 52 are physicians; out of 386 in our House of Representatives, only three are physicians. In the combined Houses of the French Republic, representing forty millions of people, are 92 physicians. In the combined Houses of our own Government, representing eighty millions, there are but four physicians; and the contrast is emphasized when we remember that there are but 30,000 physicians in France.

whereas in our own land there are 120,000.

The Premier of France, Combes, to whose initiative, energy and persistence is due the separation of Church and State; and Clemenceau, his successor, who is carrying to completion the great reforms inaugurated by Combes, are both physicians.

And what can be said of France can be said also of Germany and England, for in the Reichstag and in the Houses of Parliament are always found a liberal sprinkling of physicians. Added to this are acknowledge public honors, such as the Legion of Honor of France, acknowledged by the world for the merit which is required before the coveted medal can be worn. Nothing of a similar nature can be found among us.

In the absence of medical men from the halls of Congress lies the secret of our nation's lack of appreciation of the heroic and humanitarian work done by members of our profession. Next to the lawyer, the doctor, through his superior education and contact in practice with all manners of men, is preeminently fitted for legislative work. If proof were needed as to his capabilities in this line no better example could be cited than the first citizen of the beautiful city in which we meet to-day.* So that it remains for the medical profession to act. The steps now being taken by the national, state and county medical societies to organize and work as a unit, can, by being directed toward sending medical men to Congress, soon secure such a representation that public recognition for our meritorious ones will become a matter of course and this recognition will in its turn become an incentive to the industrious and talented among us to renewed efforts for the upbuilding of society, the safeguarding of the public health, and the furthering of human happiness, always objects of our profession's best endeavors. With a strong representation in Washington it will be comparatively easy to add another member to the President's cabinet—a physician who will be recognized by all as the most important member of that distinguished body, for he will have the health of the nation as his special charge.

From this it will be but a step to the nationalizing of our medical schools and when this is accomplished, professorships in these institutions will be looked upon as position of honor for which our master minds will strive, and attention being drawn to them through being nationalized, the public will demand that men of preeminent ability, or who possess peculiar merit, be made the recipients of these honors.

Whether or not we are appreciated by the communities in which we live is largely a matter of individual magnetism and merit. In my judgment there are no people under the sun more appreciative of the services of their family physicians than our own. The absence

*Dr. Alexander M. Dockery, repeatedly returned to Congress as representative from Missouri, and also Governor of the state, 1900-1904.

of class distinction makes it impossible to view the conscientious doctor as other than a friend. They know that, though he may be poor, he does more for sweet charity's sake than is done by all others of the community. Though not over religious, that he practices more christianity than the clergy; and though a public servant, that he is the one to whom they look with trust and confidence in the hour of greatest need.

I know of no better way to illustrate the esteem in which the faithful physician of our own land is held by his patients than by mentioning one who at the time of his death, which occurred during the past year, was first vice president of our State Medical Association. His lot was cast in the country and his practice throughout was largely charitable. Broad and liberal in his ideas, his great learning, his clearness of thought, his sympathy with the sick, his freedom from professional jealousies, and his encouragement of the younger members of the profession, stamped him as a leader in his limited world of action. He was the patron saint of the sick room. He was inspired by the voice of suffering humanity and threw himself into the fight against disease with an enthusiasm which inspired those who sat at his feet and learned wisdom. The confidence with which he inspired the members of his profession was also shared by his patients, for I have seen suffering ones, after a night of pain, and nurses, after a siege of dread and worry, heave a sigh of relief when he stepped upon the threshold; for here was one on whom they had learned to rely, one who shouldered the responsibilities without a murmur and who shed the radiance of his kindly disposition over all. When it became known that he was on his death-bed the grief of those among whom he had labored was as intense as though it had been in their own families. And at his funeral services, in which eulogies were pronounced by representatives of his profession and of his church, and by a former Governor of our state, women were unable to control their grief and strong men of the pioneer stamp spoke with sobbing voices of the virtues of their old friend and reliance in the dark hours of sickness and despair.

They recalled his tireless devotion to his patients, how he had sacrificed his own comforts to minister to their loved ones, never failing them in their hour of need. They told of daily deeds of kindness, and of how day after day and night after night, exposed to the elements, exposed to infection, without thought of self, intent only upon saving human life, he had by his quiet, unostentatious heroism, endeared himself to all with whom he came in contact. They praised him as they recalled the sight of the mother clasping to her glad bosom the darling whom he had rescued from the clutch of death. They praised him as they recalled the relief he had so many times brought to the body burning with fever and to the watching hearts

nearby, burning with the anxiety of love. And when I heard these heartfelt words of praise and realized the void left in their lives through his death, I knew that we are appreciated at our true worth by those who know us best. And when I remembered that the great warriors of history, by digging trenches in the earth and filling them with the slain, had brought grief, and sorrow and suffering to human hearts, and that this great and good man had devoted his life to the prevention of sadness and to the relief of pain, I thought I would rather have been Dr. Allen of Callao, whose body lay before me, with his record of joy and gladness brought to loving hearts through the saving of parents to children and children to parents, than to have been the most successful conqueror, whose deeds have been perpetuated in song, painted on canvass or sculptured in marble.

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E. J. GOODWIN, M. D., EDITOR.

PUBLICATION COMMITTEE:

WALTER B. DORSETT, Chairman.

M. B. CLOPTON,

M. C. SHELTON.

EDITORIAL.

THE WAR ON QUACKERY.

The war on quackery in this state has commenced in earnest. Two of the worst offenders have been deprived of their licenses to practice. They are Drs. W. O. Bye and O. A. Johnson, fake cancer specialists, of Kansas City. The State Board of Health tried these pretenders, found them very innocent of any knowledge of the science of medicine but most guilty of gross misrepresentation and fraudulent practices; and revoked their licenses.

The Association owes much to the profession of Kansas City for working up these cases; it owes a debt of gratitude to the State Board of Health for the prompt action taken by that body and it owes a special vote of thanks to Mr. George Creel, editor of the *Independent*, of Kansas City, for his assistance in the prosecution of these cases and for his fearless arraignment of the quacks who have infested that portion of the state.

We would like to publish the evidence in full but cannot do so for want of space. The *Independent*, of Kansas City, is the only paper that published an account of the trial and every doctor in the state should read it.

THE ELIMINATION OF THE QUACK.

The work that was begun four years ago when the reorganization of our Association was completed, is ripening into fruition. With the passage of the new medical practice act by the last legislature, the profession of Missouri entered upon a new era and today we confidently look forward to an ideal state in medical matters which could not be approached under less propitious circumstances than those which now surround the practice of medicine in our state.

Hitherto the medical profession has received scant courtesy from the law-making bodies when reforms and improvements in our medical laws were requested, principally because the great majority of

physicians failed to respond to appeals for their support of changes introduced, while the opposition to stringent medical laws was always active, strong, determined and, heretofore, successful.

Let him who doubts that our organization has strengthened the position of the medical profession look back over the past few years and recall the conditions as they existed then. Inaction, apathy and indifference characterized the attitude of almost the entire profession toward illegal practitioners, toward the fraudulent practices and the deceiving advertisements of the ignorant quack and the artifices of the traveling faker. Why? Because no law could be passed which would give us the power to prosecute these swindling imposters. Through organized effort we have accomplished in a brief time what would have been utterly impossible in any length of time without organization. Not only have we a medical practice act which will insure the eradication of the quack from our state, but the medical profession now has representation on the Board of Curators of every state institution of an eleemo-synary and educational character; we have a state sanatorium for incipient tuberculosis; we have a pure food law; and the law governing prosecutions for criminal abortion has been mended to make that crime a felony and so changed that convictions may be more easily obtained.

We cite these successes in order to remind the members that through organized effort we can accomplish many things. Our object here is to arouse every county society to activity in the prosecution of quackery. Fortunate, indeed, is the profession in having a State Board of Health whose members can be relied upon to do their duty in every case when the evidence is sufficient to convict. This evidence must be gathered by the members of the county societies, and the task is not a light one for it will involve loss of time, expenditure of money and much personal inconvenience; yet without such sacrifices all previous efforts will have been in vain. The State Board of Health can prevent incompetent persons from taking out licenses but it cannot revoke the licenses of those who are now engaged in illegal practices and fraudulent procedures, unless the members will take up the work of prosecuting them.

We now have a law that exacts knowledge, ability, education, learning and a standard of character, which will permit only worthy men and women to enter the ranks of our noble profession. No longer need the honorable members of the profession in this state hesitate to bring before the State Board of Health charges of illegal practice or gross unprofessional conduct against persons guilty of these acts. The law is plain and provides the specific remedy. The time has passed when we shall be compelled to view the mischievous work of the ignorant quack and see the charlatan play upon the fears of the unfortunate sick, only to leave them finally in a hopeless, if not in a dying condition, while we, perforce, stand by powerless and impotent to raise even

a feeble hand in protest because the law—or the absence of law—protects them. Upon the organized profession has been placed the burden of cleansing Missouri of this class of pretenders and each county society must assume its share of the burden. Let us not fail in our duty.

The members in Kansas City have taken the lead in this matter, as they have in many other things, and successfully prosecuted before the State Board of Health two of the most disreputable of the fakers who have dishonored our cult. Bye and Johnson have, of course, appealed their cases to the courts but we have faith in the intelligence and integrity of the court and do not fear that the ruling will be changed.

We look forward to the time, which we trust is not far distant, when judges, lawyers, clergymen, legislators and even lay editors will realize that the labors of the medical profession are devoted to the public weal, and when they will see at last, as they surely must, what crimes have been committed in the name of medicine. Then they will abandon their attitude of indifference and become active co-workers with us in our fight against frauds and fakes in the medical profession.

PUBLIC MEETINGS.

We are pleased to observe that public meetings of county societies are becoming more frequent. Knox County devoted their meeting of July 1st to this purpose: Harrison County will hold a public meeting in October and Saline County is arranging for a similar meeting at an early date.

These meetings are very advantageous in many ways. Knowledge of hygienic and sanitary principles can be disseminated among the intelligent classes of the people in a community more effectively and more rapidly in this way than by any other means and a warmer feeling of fellowship between the physician and the public will be established which cannot fail to be of benefit to all.

At each of these meetings there should be something said, a paper read, perhaps, concerning the collection of the vital and mortuary statistics throughout the state. The general public is woefully ignorant of the importance of these statistics being made a part of our public records and until the people understand the great value attaching to such matters it will be difficult to induce the legislature to pass necessary laws and appropriate funds to insure the gathering of accurate statistics. Another subject that might be presented at these meetings is that of the free distribution by the state of diphtheria antitoxin to the poor. Papers on such subjects could be made interesting and intelligible to the laity if technical terms were avoided.

While we are educating the people along lines that will enable

them to guard against disease and infection, we can sow some seed that will bear good fruit when we go before the law-making body and ask for certain measures to further advance the interests of the commonwealth.

The early publication of the life of the late Dr. Nathan Smith Davis, "Father of the American Medical Association" by Isaac N Danforth (Cleveland Press, Chicago) will interest every member of the profession. Aside from the facts of formal history, are the many personalities of Dr. Davis interwoven with the reminiscences and recollections of contemporaries, together with the characteristics that made him a central figure and his name a common one among physicians throughout the land. These have been especially well brought out, and the reader who thinks of meeting "only a lot of dry old chronicles" will find that his "guess" proved very far from the mark.

Members will be interested in the announcement of the early appearance of Von Neusser's *Symptomatology and Diagnosis of Disorders of Respiration and Circulation*, translated into English by Andrew MacFarlane, M. D., (E. B. Treat & Co.) The work will appear in three parts. Part I will be ready in September. In his preface the translator says: The development of bacteriology since Kock's discovery of the tubercle bacillus in 1881 and the application of solid culture media for the differential growth of bacteria have tended in the last two decades to lead the physician to rely for his diagnosis upon laboratory aids and less upon clinical observation. In order to be thoroughly understood and rationally treated, disease must be studied primarily in its entirety as a pathological process. The physician cannot absolve himself from this responsibility nor find any easy road through the work of another to this desired goal.

These lectures are the resultant of almost limitless clinical material and of a scientific acumen which does not overlook any fact no matter how seemingly trivial and unimportant.

CORRESPONDENCE.

THE MISSOURI SANATORIUM FOR INCIPIENT TUBERCULOSIS.

The Editor, Journal Missouri State Medical Association:

Sir:—In making the following statements I am attempting to respond to rightful demands for information by many friends of this institution, and of the tuberculous crusade in our State. Having been but recently connected with the sanatorium I think I can speak fairly of the work of the commissioners, whose duty has now terminated, and of the present condition of the work committed to the care of the board of managers.

Two years ago the Legislature made a grant of \$50,000 with which to begin the sanatorium. A commission consisting of Drs. Bayliss, McElwee, and Eaton, and Messrs. Gupton and Craig, was appointed to select the site and decide on building plans. After considering a number of places, Mount Vernon in the southwestern part of the State was chosen. The only possible objection that can be made to this selection is the difficulty in reaching it. The site is beautiful and the surroundings all that could be desired. Mount Vernon is the attractive county seat of Lawrence County on a branch of the main line of the St. Louis and San Francisco R. R., north west twelve miles from Aurora.

Twenty-five thousand dollars were allowed for building purposes, to which the citizens of Mount Vernon added \$6,000 and gave 190 acres of land, with electric light and water privileges for five years. The other twenty-five thousand dollars were spent in fittings, ground expenses, expenses of the board, etc., all of which I believe were allowed by the State auditor before the board of managers was organized.

The property coming into the hands of the board of managers is the land; facing south east—on a hill overlooking the town from which it is a half mile distant—a most complete pavilion, costing nearly twenty-five thousand dollars, temporary buildings, kitchen, stables, etc., furniture, diet kitchen outfit, laboratory armamentarium and library. Of these last items the inventory has not been given to the board.

The personnel of the board will interest many. The President is Dr. J. L. Eaton, of Bismarck, who certainly has my confidence. Mr. W. L. Gupton, of Montgomery City, is the secretary, and is favorably known to many of the best citizens of Missouri. Mr. W. D. Craig, of Galena, is a prominent business man, of whose earnestness and integ-

rity there can be no question. These three were on the board of commissioners. Two others were appointed, Mr. S. H. Minor, of Aurora, a well known citizen and banker, whose business methods and justice promise much for the board; and the fifth member, myself.

I say unhesitatingly, that the evident purpose of each member of the board is to make the sanatorium a success and that each one feels his responsibility and realizes what it means to the State. There are many difficulties in the way, but I am more than ever confident that the best interests of the State will be subserved and that neither politics, sentiment, nor sectional prejudice, will sway the board from that purpose.

The last Legislature gave \$135,000 for additional buildings, of which sum the Governor has thought best to withhold \$60,000 this year, hoping that it may be obtainable next year. With the \$65,000 one more pavilion will be built and furnished and the administration building finished this year. Next year the power house and domestic building will be completed if we can get the \$60,000.

The buildings, while seemingly costly for a sanatorium for incipient tuberculosis, are necessarily the most expensive ones. The two pavilions will be needed as the work grows, for infirmaries and the medical building, the domestic building, and the power house, certainly must be permanent and substantial. After carefully examining the present buildings, and the plans so far as the five above mentioned are concerned, I can say that I heartily approve them. When other buildings for patients are added, which cannot be for at least two years, doubtless very different plans will be adopted.

The board of managers recognize that the medical conduct of the cases is most important, for many even of the advocates of the sanatorium, look upon it as experimental and ask "to be shown." One of the first acts of the board, therefore, was to decide that a physician well fitted in all respects as a diagnostician, bacteriologist, and microscopist should be secured to have permanent charge of the patients and it seems, at this writing, that such a physician has been found, one who at considerable sacrifice, but with the assurance of the support of the board, will endeavor to make this great work a success. Dr. W. M. Bayliss of the former board of commissioners has been elected business superintendent, with the duties of the office and stewardship.

The board of managers will have to contend with a very small maintenance fund, only \$10,000 for eighteen months. It is figured that with each patient there will be a deficit, the law fixing the charge of all county and city patients at \$5 and experience elsewhere shows this to be too small. It is intended, however, to make the best of it and to open the sanatorium about August 1st.

One word more. I owe my place on the board to the will of the Governor, who has shown great interest in the sanatorium, and to my friends in the profession, for I made no application for the appoint-

ment. I appreciate the confidence. I ask that the same confidence may be extended to the other members of the board, and that forbearance may be shown because of present limitations.

We feel that this is your work and that we only represent you. If we cannot represent you well, we will stop, but with patience on your part, and patience, hard work, and some sacrifice on ours, we will succeed:

WILLIAM PORTER, M. D.

Editor of the Journal of the Missouri State Medical Association.

Dear Doctor:—The State Board of Health met at Midland Hotel, Kansas City, Mo., on July 30, 1907, and passed upon the grades of the applicants who took the examination at Mexico, Mo., on July 9, 10, 11th, 1907. Out of twenty-one whose grades were passed upon, nine passed and twelve failed. The schools represented and year of graduation are as follows:

	Passed.	Failed.
P. and S. of St. Louis.....		1-06; 3-7.
Washington University, St. Louis.....	1-07.....	1-07.
American Med. College, St. Louis.....		2-07.
Amer. Col. of Med. and Surgery, Chicago.....		1-07.
Uni. Med. Col. Kansas City.....	1-07.....	2-07.
Uni. Col. of Medicine, Virginia.....	1-95.....	
Northwestern University.....	1-04.....	
Barnes University, St. Louis.....	1-07.....	2-07.
Uni. of Louisville.....	1-07.....	
Rush Medical College.....	1-06.....	
St. Louis University.....	2-07.....	

The Board also heard the evidence against Dr. O. A. Johnson and Dr. W. O. Bye, both charged with unprofessional and dishonorable conduct by advertising in a way that is unprofessional, dishonorable, misleading and calculated to deceive the public. The charges were sustained and their licenses were revoked. They have both since appealed from the decision of the Board to the Circuit Court of Jackson county.

Yours very truly,

J. A. B. ADcock, M. D.,
Secretary Missouri State Board of Health.

Editor of the Journal of the Missouri State Medical Association.

Dear Sir:—The Missouri State Sanatorium for Incipient Pulmonary Tuberculosis is now ready for the reception of patients. The Villa, the corner stone of which was laid August 15, 1906, is finished and completely furnished. It will accommodate about fifteen pa-

tients at present. The second Villa is in the course of erection and is to be finished by January 1, 1908. A third building, to be known as the Medical Wing of the Administration Building, will be started, it is hoped, in the course of a few weeks.

The law provides that two classes of patients shall be received here. These are known as free patients and private patients. Preference is given to the former. Private patients apply directly to the Sanatorium for admission. A list of applications is kept in the order of their receipt. Free patients apply through the county court or, if they reside in St. Louis, through the Auditor of the City, by affidavit, stating that they desire admission to the State Sanatorium and that they are unable to pay for their support and treatment while there. After investigation and finding the applicant to be worthy of charity, he is recommended by the Clerk, or the Auditor, as the case may be, for admission to the Sanatorium. When a vacancy occurs in the Sanatorium, the applicant whose name appears first on the list of free patients is referred to an examiner for examination. If acceptable he is sent to the Sanatorium by the county in which he resides. If he is not acceptable the individual whose name appears next on the list is referred to an examiner. In case there are no names on the free patient list, the one whose name appears first on the private list is referred to an examiner.

A good many letters have been received from persons who have tuberculosis. Only a few of these have made formal application; but there will be no trouble in filling the Sanatorium. In order that we may get the most favorable cases, it is necessary that the doctors in the State thoroughly understand the purpose of the institution, the class of cases that are acceptable according to the law and the method by which formal application is made.

The following, although intended for the guidance of the examining physicians, will be of assistance in deciding what cases may be considered acceptable.

INSTRUCTIONS FOR THE EXAMINING PHYSICIANS.

The law distinctly states that only incipient cases of pulmonary tuberculosis shall be received at the Sanatorium. In order that there be a common understanding of what is meant by an incipient case the following definitions are given: First will be described what is not an incipient case. A past-incipient case is one (1) which may have acute manifestations associated with fever and signs of progress; (2) which has distinct febrile reaction, weakness and other signs of toxemia after doing a small amount of work; (3) which may have an involvement greater than a half of one lobe; (4) which may have marked ulcerative processes with cavity formation; (5)

which may have laryngeal tuberculosis, as indicated by prolonged hoarseness; (6) which may have intestinal tuberculosis, with pain and diarrhoea; (7) which may have marked loss of weight.

An incipient case will be considered one in which there is no marked impairment of function, either local or constitutional, and in which the localized consolidation is moderate in extent, involving less than a half of one lobe, with little or no evidence of destruction of tissue or disseminated fibroid deposits; and in which there are no serious complications; and in which there is no rapid loss of weight; and in which expectoration is small in amount or absent, and in which the tubercle bacilli may be present or absent.

The examination blanks have been made out with considerable care in order that the records of the physical findings will be so complete as to leave little doubt as to which class the case shall be judged to belong. It is hoped that the examiner will record facts—other than those called for in the examination blanks—which will be of service in classifying the case. The blanks should be filled out in duplicate and, whether the case be suitable or unsuitable, one of the forms should be mailed to the Sanatorium in order that the reason for rejection or acceptance may always be available.

Should there be any doubt, at any time, on the part of the examiner in regard to anything pertaining to the examination or admission, the physician in charge will be glad to supply any information in his power.

The following physicians have been appointed Local Examiners. Other selections will be made from time to time:

Hannibal, Dr. A. J. Detweiler; Dr. J. J. Bourn; Palmyra, Dr. S. Sanford; New London, Dr. T. J. Downing; Aurora, Dr. J. B. Fleming; Ironton, Dr. I. A. Marshall; Bonne Terre, Dr. L. A. Anthony; Potosi, Dr. J. P. Townsend; Montgomery City, Dr. David O. Nowlin; Mexico, Dr. Edwin S. Cave; Joplin, Dr. L. I. Mathews; Memphis, Dr. E. E. Parish; Crane, Dr. D. M. Huffman; Neosho, Dr. E. M. Roseberry; Macon, Dr. A. B. Miller; Shelbyna, Dr. J. D. Smith; Columbia, Dr. Woodson Moss; Milan, Dr. W. L. M. Witter; Cassville, Dr. S. A. Newman; Albany, Dr. G. W. Doyle; Bethany, Dr. F. H. Broyles; Desoto, Dr. A. H. Hamel; Poplar Bluff, Dr. J. J. Norwine; Charleston, Dr. A. W. Chapman; Cape Girardeau, Dr. J. D. Porterfield; Clinton, Dr. R. D. Haire; St. Louis, Dr. Wm. Englebach, Dr. L. M. Warfield, Dr. L. C. McElwee; Jefferson City, Dr. Gustave Ettmueller; Rolla, Dr. S. L. Baysinger; Kansas City, Dr. Walter M. Cross, Dr. E. W. Schaufliker, Dr. Newton McVey; Springfield, Dr. J. E. Tefft, Dr.

J. P. Ralston, Dr. W. M. Smith; St. Joseph, Dr. L. A. Tood, Dr. W. B. Deffenbaugh, Dr. C. H. Wallace.

Very truly yours,

O. H. BROWN, M. D.,
Physician-in-Chief.

Fayette, Mo., Aug. 9, 1907.

Editor of Journal Missouri State Medical Association,

Dear Sir:—The Howard County Medical Society at its regular session, held August 2, 1907, organized a Society for the Prevention of Tuberculosis, to act and be subject to the Missouri Association.

The following members were selected, through the president and secretary, to meet September 6, 1907, at which time they will elect a president, secretary and executive board, and report to Dr. Wm. Porter, St. Louis: Dr. Paul C. Smith, Fayette; Dr. T. B. Fleet, New Franklin; Dr. J. Y. Hume, Armstrong; Dr. J. T. Wood, Harrisburg; Dr. C. F. Drake, Boonsboro; Dr. J. R. Champion, Hillsdale; Dr. W. R. Hawkins, Glasgow. Dr. U. S. Wright, ex-president of the Missouri State Medical Association, consented to act and confer with the members.

N. E. SMITH, M. D., Pres.
C. W. WATTS, M. D. Secy.

By order of the Society.

COUNTY SOCIETY NOTES

CALDWELL COUNTY MEDICAL SOCIETY.

The Caldwell County Medical Society met at Kingston, July 10th. with Dr. W. L. Lindley in the chair.

Two new members were elected and the following papers were read:

"Bronchitis," by Dr. R. W. Goins, Breckenridge. "Puerperal Eclampsia," by Dr. R. L. Mount, Polo. "Typhoid Fever," by Dr. W. S. Shouse, Kingston. "Acute Catarrhal Dysentery," by Dr. G. S. Dowell, Braymer.

Dr. B. F. Carr, of Polo, reported several cases of acute enlargement of the liver with excessive vomiting of bile. Dr. W. L. Lindley gave a report of what he observed in the Mayo Brothers' clinic at Rochester, Minn.

The society adjourned to meet at Breckenridge in October.—TINSLEY BROWN, M. D., Reporter.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

The Cape Girardeau County Medical Society held its regular monthly meeting at Cape Girardeau, August 2nd.

The program rendered was as follows:

"Treatment of Summer Diarrhea in Infants," by Dr. Wichterich.

"Puerperal Eclampsia: Etiology and Pathology," by Dr. Hays as Dr. Hays was absent, Dr. Vinyard gave an interesting talk.

"Treatment of Puerperal Eclampsia." Dr. Winters being sick, Dr. Wichterich volunteered to fill his place.

All present entered into the discussion of the subjects and the meeting proved to be profitable socially as well as instructive from a practical standpoint. Society adjourned to meet in Jackson, September 6th.—E. H. G. WILSON, Secretary.

CARTER-SHANNON COUNTY MEDICAL SOCIETY.

The Carter-Shannon County Medical Society met in regular session at Fremont, Mo., July 23rd. The routine work being disposed of, the following program was rendered: First a lecture on fractures of the femur by Dr. T. W. Cotton, with drawings, specimen bones, etc. The doctor also presented a case of fracture which he had treated a few months previously, in a boy 12 years of age, in which the femur had

been broken at upper third. A splendid result was secured in this case as no appreciable shortening was found by the members who measured the boy's legs. This subject was freely discussed by the doctors present, and many points of interest were brought out.

Dr. Chas A Wright read a paper entitled "A System of Co-Operative Collection," which contained many points of interest regarding the making collections, especially dealing with the idea of an understanding among the doctors in any one community, as to co-operating along this line. The paper was interesting and freely discussed.

A paper by Druggist, J. T. Loyd, comparing the strength of medicines that are affected by the last revision of the U. S. Pharmacopoeia with those of the old, was read and discussed with interest.

The meeting was one of the most interesting in the history of the society, and the attendance was better than usual.—J. A. CHURTON, M. D., Reporter.

HARRISON COUNTY MEDICAL SOCIETY.

The Harrison County Medical Society met in regular session in Bethany on July 23rd. The meeting was held in the Circuit Court room. Although the attendance was not large, the meeting was an excellent one. Papers were read by Dr. C. A. Mitchell, of Blythedale, and Dr. W. H. Wiley of Ridgeway. The subject of Dr. Mitchell's paper was "The Value of the Opsonic Index in the Diagnosis of Tuberculosis." The subject of Dr. Wiley's paper was "Tuberculosis; Treatment, Prevention and General Sanitation." These papers showed the writers had given their subjects much thought and were freely discussed by the members present.

Hon. J. C. Wilson was present and made a splendid address along the line of sanitation. He took occasion to criticise the medical profession along certain lines, but made us feel good by congratulating us on the good work being done by the profession.

Dr. Beatie of Kansas City was present and made a nice talk.

Dr. W. R. Delong, of Andover, was elected to membership in the society.

The next regular meeting of the society will be in October. A general invitation will be extended to the public to attend this meeting. The subjects of the papers to be read at that meeting are to be along the line of sanitation. This is a subject of vital importance, and one every good citizen ought to be interested in.—F. H. BROYLES, M. D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY.

The Howard County Medical Society met at Fayette, August 2nd.

The following were present: Drs., Lee, Moore, McGee, Lewis, P. C. Smith, N. E. Smith, Richards, Wright, Burgwin and Watts.

Clinical cases of tuberculosis of the epiglottis, obstetrical, typhoid, and hiccough. The cases were discussed by all present and were found very interesting and instructive. The doctors differed in some cases as to treatment but all agreed as to good nursing, etc.

In compliance with request of State Medical Society and of the State Board of Health, the Howard County Medical Society by vote requested that the president and secretary appoint seven of its members to constitute a County Tuberculosis Society and report same to the State Medical Journal, this County Society of Tuberculosis to act with the State Society for the Relief of Tuberculosis and with the State Board of Health. As Dr. U. S. Wright had been elected delegate to the United States Tuberculosis Society at a meeting a year ago, he was requested to act and counsel with the County Society. The secretary agreed to act as secretary of the County Tuberculosis Society until it met at Fayette, Friday, September 6, 1907, when officers would be elected. The president, being an executive official member by reason of his office as president of the Howard County Medical Society, would act with the said society when requested. Members appointed by request of the society were as follows: Drs. Paul C. Smith, Fayette; Q. V. Bonham, New Franklin; T. B. Fleet, New Franklin; J. Y. Hume, Armstrong; W. R. Hawkins, Glasgow; J. T. Wood, Harrisburg; J. R. Champion, Hildale; C. F. Drake, Boonsboro. These are to meet and elect a president, vice president, secretary and executive committee at our next regular meeting, Friday, September 6th, 1907.

Dr. W. Scott Thompson, by reason of his membership in the State Board of Health is recognized with said society. Not being present, Dr. Thompson was not consulted, but the committee of appointment request his acting with his county society when they meet.

After the organization and election in September, 1907, they will report their action to Dr. William Porter, of St. Louis, who has taken such an active part in the State Society for the Relief of Tuberculosis.

The Society had a very interesting and profitable session and by unanimous vote refused to entertain Dr. Watts' request of resignation as secretary and reporter for the society until its annual election, November, 1907, for officers for 1908.

The society adjourned, good feeling, peace and harmony prevailing.—C. W. WATTS, M. D., Reporter.

KNOX COUNTY MEDICAL SOCIETY.

A meeting of the Knox County Medical Society was held at Edina, on July 1st, 1907, with Dr. L. T. Brown in the chair.

The scientific program consisted of a symposium on abortion consisting of the following papers:

"The Medical Aspect of Abortion," by Dr. J. R. Northcutt, of Knox City.

"The Legal Aspect of Abortion," by the Hon. O. D. Jones, Edina, Mo.

"The Moral Aspect of Abortion," by the Rev. Father C. E. Byrne, Edina.

All these papers were freely discussed by the gentlemen present. The audience was made up of physicians, lawyers and preachers.—H. JURGENS, M. D., Secretary.

LINN COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Linn County Medical Society was held in Linneus, Tuesday evening, August 27th. The following papers were read:

By Dr. W. H. Musgrove. Subject: "Pertussis."

By Dr. Kathryn V. Standly. Subject: "Water as a Therapeutic Agent."

By Dr. D. F. Howard. Subject: "Suppurative Inflammation of the Mammæ."

A full report will appear in our next issue.—F. W. BURKE, M. D., Secretary.

SALINE COUNTY MEDICAL SOCIETY.

The meeting was called to order at 11 o'clock, August 13th, 1907, in the county court room.

The committee on credentials and membership recommended Dr. Ringen, of Sweet Springs, for membership, and he was unanimously elected.

The Chair appointed Drs. Howard Hall and Jarvis, a committee of three, to select the subject for discussion at the next meeting and to nominate some one to open discussion.

Dr. J. S. Harrison was proposed for membership, and then the meeting adjourned for dinner.

On reconvening at 1:30, Dr. D. S. Gore read a paper on "The Physician's Duty as a Citizen." This was followed by a paper by Dr. J. E. Harris upon the same subject. A general discussion followed.

Dr. Howard moved that the two papers read be published in the county papers. Seconded and carried. Moved and seconded that the next meeting be a public meeting and that these two papers be read before this open meeting; also that a paper on tuberculosis be read at that time. Carried. The chair appointed the secretary, Dr. D. C. Gore, J. E. Harris and F. H. Howard as a committee to select the time and place for this meeting. Dr. Howard was selected to read the paper on tuberculosis.—A. E. GORE, M. D., Secretary.

SCOTT COUNTY MEDICAL SOCIETY.

Scott County Medical Society met in the rooms of the Pastime Club at Sikeston, July 1st. Members present: Drs. Sparks, Ogilvie, Wescoat, Haw, Rodenmeyer, Tomlinson, McCable, Lucas, Yount, Milem, Miller, T. R. Frazer, Hutton.

A committee was appointed to draw up a schedule of fees to be adopted by society. On motion adjourned for dinner.

AFTERNOON SESSION.

The following papers were read: "Opsonic Index," by Dr. Sparks. Discussed by Drs. Haw and Hutton.

"Tonsillitis; its Significance," by Dr. Yount. Discussed by Drs. Wescoat, Tomlinson, Sparks.

"The Microscope and Medicine," by Dr. T. R. Frazer. Discussed by Drs. Sparks and Hutton.

"Quinine and Iron in Pneumonia," by Dr. McCabe. Discussed by the members generally.

"The Condition of the Pupil as an Aid in Diagnosis in Cases of Coma," by Dr. Lucas. Discussed by Dr. Wescoat.

"Typhoid Fever," by Dr. Haw. "Treatment of Typhoid," by Dr. Miller. A general discussion followed the reading of these two papers.

Several good papers could not be heard on account of lack of time.

The report of the committee on schedule of prices was tabled until the next meeting.

Adjourned to meet at Chaffee on the first Monday in October.—
W. S. HUTTON, M. D., Secretary.

WEBSTER COUNTY MEDICAL SOCIETY.

The Webster County Medical Society met in Marshfield, July 24th, with the following doctors present: M. Highfill, W. R. Beatie, I. S. Florence, J. I. Kilburn, J. R. Matt, W. H. Bollinger, E. Trimble, T. S. Bruton, E. M. Bailey and E. James.

The regular routine business was transacted, a constitution and by-laws adopted and the matter of looking after the illegal practitioners was discussed. The secretary was instructed to write all such and request them to comply with the law.

Under scientific communications Dr. I. S. Florence reported two cases of poisoning by eating boiled ham. The cases looked very much like arsenical poisoning.

Dr. Beatie read a paper entitled "Endocolitis," which was discussed by nearly all present.

There are seventeen regular qualified doctors in our country and twelve are members of our society. We are sure that by the next meeting we will have every practitioner in the country who is eligible for membership. You will hear from us again.—W. R. BEATIE, M. D., Reporter.

ARTICLES APPROVED BY THE COUNCIL ON PHARMACY AND CHEMISTRY.

BROMIPIN.

A bromine addition product of sesame oil, containing 10 per cent of bromine in organic combination.

Actions and Uses.—Bromipin acts like the bromides, but as it yields its bromine more slowly it is thought to have less tendency to produce brominism. The combination is not broken up in the stomach, but a portion of the bromine is split off as soon as the oil enters the intestine. The oil with the remaining bromine is easily absorbed, and, similarly to other fats, is largely deposited in the tissues, where it is slowly split up. It is said to be more lasting in its action than the bromides. **Dosage.**—4 Cc. (1 fluidram), increased in cases of epilepsy to from 8 to 32 Cc. (2 to 8 fluidrams), in emulsion with peppermint water and syrup, or pure, flavored with oil of peppermint. Manufactured by E. Merck, Darmstadt. (Merck & Co., New York).

BROMIPIN—33 1-3 PER CENT.

A 33 1-3 per cent. brominized sesame oil. Manufactured by E. Merck, Darmstadt. (Merck & Co., New York).

BUTYL-CHLORAL HYDRATE.

Actions and Uses.—Its action is similar to that of chloral, except that it is said to be less depressing and more analgetic. It has been especially recommended for facial neuralgia. **Dosage.**—0.3 to 1.3 Gm. (5 to 20 grains).

CALCIUM ICHTHYOL.

A derivative of ichthyol in which calcium is substituted for ammonium. Manufactured by the Ichthyol Co., Hamburg. (Merck & Co., New York).

CALOMELOL.

A soluble colloidal form of calomel, containing albuminoids.

Actions and Uses.—Its action is the same as that of calomel, but it is claimed to be superior because of its solubility in water, acting more rapidly and efficiently. Calomelol is claimed to be non-irritant and particularly non-toxic. The indications for its use are the same as for calomel. **Dosage.**—Internally the same as calomel. Externally it is used as a dusting powder, mixed with an equal quantity of starch or of a mixture of starch and zinc oxide, or in the form of calomelol ointment. It should be guarded from the light. Manufactured by the Heyden Chemical Works, New York.

CALOMELOL OINTMENT.

Actions and Uses.—It is a substitute for mercurial ointment, over which it has the advantage of cleanliness, and it is claimed to be distinctly superior as an inunction in syphilis, etc. **Dosage.**—6 Gm. (90 grains) daily for inunction in syphilis. Manufactured by the Heyden Chemical Works, New York.

CASCARA EVACUANT.

A preparation said to contain a bitterless glucoside, obtained from the bark of *Rhamnus purchiana*, with aromatics.

Actions and Uses.—It is claimed that this preparation possesses the laxative properties of cascara sagrada without the bitterness which characterizes the ordinary extract. It is recommended for the treatment of chronic constipation, for which cascara sagrada is one of the best medicinal agents. Dosage.—As a laxative, 0.6 to 1 Cc. (10 to 15 minims) three times a day; as a purgative, 1.3 to 2 Cc. (20 to 30 minims) morning and evening. 4 Cc. (1 fluidram) may be given in obstinate cases. Prepared by Parke, Davis & Co., Detroit, Mich.

CASCARA TONIC LAXATIVE GLOBULES.

Each globule is said to contain 0.2 Gm. (3 grains) of the bitter glucosides of *Rhamnus purshiana* suspended in a bland fixed oil, to which aromatics have been added.

Actions and Uses.—The manufacturers claim that it combines the laxative action of cascara with tonic properties of the bitter principle with the advantage of concealment of the disagreeable taste. Dosage.—One or two globules to be taken before retiring. Prepared by Parke, Davis & Co., Detroit, Mich.

CHINAPHENIN.

Chinaphenin, $\text{CO}(\text{NH}_2\text{C}_6\text{H}_4\text{OC}_2\text{H}_5)(\text{C}_{20}\text{H}_{23}\text{N}_2\text{O}_2)=\text{C}_{29}\text{H}_{33}\text{N}_3\text{O}_4$, the quinine carbonic acid ester of phenetidin.

Actions and Uses.—Chinaphenin combines the antiperiodic properties of quinine with the analgesic power of phenacetin, with the advantage of tastelessness and asserted freedom from symptoms of cinchonism produced by the administration of the two remedies in simple mixture. It is recommended in febrile diseases, especially la grippe; in spasmodic conditions, such as whooping-cough; in certain forms of malaria and in neuralgia. Dosage.—Adult: 0.3 to 0.6 Gm. (5 to 10 grains) ordinarily, 1.5 to 2 Gm. (22 to 30 grains), given in two doses as an antipyretic in neuralgia and malaria; in whooping-cough, 0.13 to 0.3 Gm. (2 to 5 grains), according to age. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

CHLORBUTANOL.

Chlorbutanol, 1,1,1-trichlor-2-methyl-propan-2-ol, $\text{CCl}_3\text{C}(\text{OH})(\text{CH}_3)\cdot\text{CH}_3=\text{C}_4\text{H}_7\text{OCl}_3$, produced by the reaction of acetone on chloroform.

Actions and Uses.—It is said to be absorbed unchanged, but to be decomposed in the body. It is a local anesthetic with an action weaker than that of cocaine, but sufficient to prevent vomiting from gastric irritation. Its antiseptic action is said to be fifteen times as strong as that of boric acid. It acts on the central nervous system similarly to chloral, and although the claim has been made that hypnotic doses are without effect on the circulation and respiration, independent observers have described a fall of blood pressure and interference with respiration in animals, and consider it fully as dangerous as chloral. In man 100 grains caused severe symptoms, but recovery occurred. It is claimed that no habit is induced, but this may be referable to its restricted employment. It is recommended as a mild local anesthetic, in dentistry, etc., as a preservative for hypodermic solutions, for insomnia, vomiting and for spasmodic conditions. It is also said to be useful as introductory to general anesthesia, lessening excitement and nausea. Dosage.—The dose is from 0.3 to 1.5 Gm. (5 to 20 grains) dry or in capsules. Hypodermically as a local anesthetic a saturated aqueous solution may be used.

CHLORETONE.

A name applied to chlorbutanol, which see. Manufactured by Parke, Davis & Co., Detroit, Mich.

CHLORETONE INHALANT.

A solution of chloretone, camphor, menthol and oil of cinnamon in liquid petrolatum.

Actions and Uses.—An anodyne, antiseptic, and emolient solution for use by inhalation as a very fine spray or nebula. Manufactured by Parke, Davis & Co., Detroit, Mich.

CREOSOTAL.

A mixture of carbonic acid esters, analogous to guaiacol carbonate, prepared from creosote.

Action and Uses.—Creosotal has the same action as creosote, but is claimed to be non-toxic and devoid of irritant properties. It is recommended as a substitute for creosote for internal exhibition in tuberculosis, pneumonia, and as an intestinal antiseptic. **Dosage.**—From 0.3 to 2.0 Gm. (5 to 30 grains) for children, to 1 to 4 Gm. (15 to 60 grains) for adults in milk, coffee, wine, cod-liver oil or emulsion. Externally it may be applied undiluted. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York). Fabrik von Heyden, Radebeul, near Dresden.

DENTALONE.

A 30 per. cent. solution of chloretone in a mixture of oils of gaultheria, cloves and cassia.

Actions and Uses.—Dentalone possesses pronounced anesthetic properties and is intended for use by dentists in the treatment of exposed nerves in decayed teeth. Prepared by Parke, Davis & Co., Detroit, Mich.

DERMATOL.

A name applied to Bismuthi Subgallas, U. S. P. Manufactured by Meister, Lucius & Bruening, Hoechst a. M. (Victor Koechl & Co., New York).

DIABETIN.

A pure, crystallized fructose (levulose), $\text{CH}_2\text{OH}.\text{CHOH}.\text{CHOH}.\text{CHOH}.\text{CO}.\text{CH}_2\text{OH}=\text{C}_6\text{H}_{12}\text{O}_6$, absolutely free from dextrose (ordinary glucose).

Actions and Uses.—Levulose is metabolized in the body by other agencies than those that act on dextrose and most of the other sugars and appears to be more completely utilized by the diabetic organism than the other sugars. It is recommended for the nutrition and for sweetening the food and drink of diabetics, in pulmonary tuberculosis, infantile malnutrition and marasmus. **Dosage.**—It is given in diabetes in daily quantities of 30 to 60 Gm. (1 to 2 ounces); in grave forms of the disease the amount is reduced to from 12 to 24 Gm. (3 to 6 drams) daily. Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin (Schering & Glatz, New York).

DIONIN.

Dionin, $\text{C}_{17}\text{H}_{17}\text{NO}(\text{OH})(\text{OC}_2\text{H}_5)\text{HCl}+\text{H}_2\text{O}=(\text{C}_{19}\text{H}_{21}\text{O}_3\text{ClN}+\text{H}_2\text{O})$, the hydrochloride of the ethyl ester of morphine.

Actions and Uses.—It is claimed that this compound acts like morphine without producing constipation, nausea or lassitude. It is the conclusion of some good observers that it possesses no advantage over codeine. Applied to the eye, it causes a local vasodilation, leading to acute conjunctival edema. Dionin is recommended to relieve pain, especially in respiratory affections, as an antispasmodic in whooping cough, for insomnia and externally in the treatment of corneal affections, conjunctivitis, iritis, etc. **Dosage.**—0.015 to

0.06 Gm. ($\frac{1}{4}$ to 1 grain). Externally it is applied in 10 to 20 per cent. solutions. Manufactured by E. Merck, Darmstadt. (Merck & Co., New York).

DIURETIN.

A name applied to theobromine-sodium salicylate, which see. Manufactured by Knoll & Co., Ludwigshafen, Germany (E. Merck & Co., New York).

DUOTAL.

A name applied to Guaiacolis Carbonas, U. S. P. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

DUOTONOL.

A name applied to a mixture of equal parts of calcium tonol and sodium tonol. (See Tonols.)

Actions and Uses and Dosage.—See Glycerophosphates. Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin (Schering & Glatz, New York).

ELIXIR EUPNEIN.

A preparation said to contain in each dose of 8 Cc., (2 fluidrams): heroin 0.0026 Gm. (1-24 grain), terpin hydrate 0.13 Gm. (2 grains), creosote 0.3 Gm. (5 grains), in a menstruum containing 30 per cent. of alcohol with glycerin and aromatic essential oils.

Actions and Uses.—From its composition it appears to be well adapted to use in chronic cough from bronchitis, etc. Dosage.—4 to 12 Cc. (1 to 3 fluidrams). Prepared by Schieffelin & Co., New York.

ELIXIR SAW PALMETTO.

An elixir of saw palmetto berries, sandal wood and cornsilk.

Actions and Uses.—The constituents of this preparation are credited with diuretic properties and believed to be sedative to the genitourinary tract and to exert a curative action on the inflamed mucous membrane, especially in chronic cases. Dosage.—4 to 16 Cc. (1 to 4 fluidrams) three times a day. Prepared by Parke, Davis & Co., Detroit, Mich.

EMPYROFORM.

A condensation product of birch tar and formaldehyde.

Actions and Uses.—Empyroform is an antipruritic, sedative and desiccant. It is said to be superior to tar and free from irritant or toxic effects. It is claimed to be useful in all stages of eczema, psoriasis, lichen, urticaria, prurigo, pityriasis, etc. Dosage.—It is applied as a 5 to 10 per cent. ointment, 10 to 20 per cent. zinc paste, 10 to 20 per cent. tincture, and 37.5 per cent. suspension. Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin (Schering & Glatz, New York).

EPICARIN.

Epicarin, $C_6H_5(OH)(COOH)(CH_2C_{10}H_6OH)2:3:1=C_7H_4O_4$, *B*-naphthol-hydroxy-tolnic acid.

Actions and Uses.—Epicarin is a non-poisonous antiseptic and parasiticide. Administered internally, it is excreted mostly undecomposed. It has been found useful in the treatment of skin diseases, particularly scabies, tinea tonsurans, prurigo and certain forms of eczema. Dosage.—It is used externally only in the form of 5 to 20 per cent. ointment, with petrolatum or wool fat (lanolin) as base, or in the form of oily or alcoholic solutions (10 per cent.). Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

ERYTHROL TETRANITRATE.

Erythrol tetranitrate, $C_4H_6(NO_2)_4=C_4H_6O_{12}N_4$, the tetranitrate of erythrite or butane-tetrol, $C_4H_6(OH)_4$.

Actions and Uses.—It is a vasodilator and antispasmodic, like nitroglycerin. Its action is slower and more lasting; it begins in 15 minutes and persists for three or four hours. It is recommended in angina pectoris and cardiac diseases. It is reported as especially useful as a prophylactic in preventing anginal pain. **Dosage.**—Because of its explosiveness it is marketed in the form of tablets, each containing 0.03 Gm. ($\frac{1}{2}$ grain). One or two tablets every four to six hours. Manufactured by E. Merck, Darmstadt (Merck & Co., New York).

ETHYLENEDIAMINE.

Ethylenediamine, $C_2H_4(NH_2)_2$, a substitution compound of ethylene and ammonia.

Actions and Uses.—It is said to be non-corrosive. It is recommended as an albumin solvent for the solution of false membranes in diphtheria and similar affections of the mucous membranes. It is recommended for use in the form of kresamine (which see). Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin (Schering & Glatz, New York).

EUCAINE.

The "Eucaines" are two closely allied synthetic bases, which were originally differentiated as eucaine "A" and eucaine "B," but are now designated as "Alpha-eucaine" and "Beta-eucaine," respectively, alpha-eucaine being a synthetic derivative of triacetoneamine, while beta-eucaine is a synthetic derivative of vinyl-diacetoneekalmine. Both of these bases are supplied as hydrochlorides and are recommended as substitutes for cocaine, over which they are claimed to have certain advantages. They are described under alpha-eucaine hydrochloride and beta-eucaine hydrochloride.

EUCALOIDS.

Gelatine capsules, each containing 0.3 Cc. (5 minims) of pure oil of eucalyptus.

Dosage.—1 to 2 globules three or four times a day. Prepared by Edward G. Binz, Los Angeles, Cal.

EUCAMUL.

An emulsion of oil of eucalyptus in glycerin and honey, containing 0.13 Cc. (2 minims) of the eucalyptus oil in 4 Cc. (1 fluidram):

Dosage.—2 to 4 Cc. ($\frac{1}{2}$ to 1 fluidram), as needed. Prepared by Edward G. Binz, Los Angeles, Cal.

EUGALLOL.

A solution consisting of two parts of monacetylpyrogallol, $C_6H_2(OH)_2(CH_2COO)$, and one part of acetone.

Actions and Uses.—Eugallol acts as an energetic substitute for pyrogallol, but is liable to produce local irritation when applied to the skin. **Dosage.**—It is applied pure by pencilling once a day, covering the painted part with powdered zinc oxide, suspending the application a few days if it is followed by irritation. Manufactured by Knoll & Co., Ludwigshafen a. Rh. and New York.

EUMYDRIN.

Eumydrin $C_6H_5(HO.CH_2)CH.CO_2C_7H_{13}N(CH_3)_2NO_2=C_{18}H_{27}O_6N_2$, the nitrate of methylated atropine:

Actions and Uses.—Eumydrin is a mydriatic and antihydrotic, replacing atropine sulphate both internally and externally in corresponding doses. It is claimed that it dilates the pupil more rapidly than atropine and the dilatation is of shorter duration—being intermediate in these respects between atropine and homatropine. It is said to be much less toxic than atropine, so that larger doses may be given to secure the effect. It is particularly recommended for the treatment of night sweats, whooping cough and the relief of enuresis. **Dosage.**—Internally as an antihydrotic, 0.001 to 0.0025 Gm. (1-60 to 1-24 grain). Externally as mydriatic, in solutions about one-tenth stronger than the usual atropine solutions. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

EUPHORIN.

Euphorin, $\text{CO}(\text{HN} \cdot \text{C}_6\text{H}_5)(\text{OC}_2\text{H}_5)=\text{C}_9\text{H}_{11}\text{O}_2\text{N}$, a compound closely allied to Ethylis Carbamas, U. S. P. (urethane) and differing from this by the replacement of the group NH_2 by NHC_6H_5 .

Actions and Uses.—Euphorin is anodyne, antipyretic and antiseptic. It is recommended in rheumatism, sciatica, headache, etc. Externally it is recommended to be applied as a dusting powder in venereal and skin diseases, ulcers, burns, etc. **Dosage.**—0.5 to 1 Gm. (8 to 15 grains) dissolved in wine or suspended in water; externally in powder, in laholin ointment and in superfatted soap. Manufactured by Fabrik von Heyden, Radebeul near Dresden.

EUPHTHALMIN.

Euphthalmin, $\text{C}_{17}\text{H}_{25}\text{NO}_3\text{HCl}$, a mandelic acid derivative of beta-eucaine.

Actions and Uses.—Euphthalmin produces prompt mydriasis free from anesthetic action, pain, corneal irritation, or rise in arterial tension. It has little or no effect on accommodation, and this disappears more rapidly than with atropine, cocaine, homatropine, etc. In its effects on the general system, euphthalmin very closely resembles atropine. **Dosage.**—2 or 3 drops of a 5 to 10 per cent. solution, according to age of the patient and the nature of the case, are instilled into the eye. Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin (Schering & Glatz, New York).

EUQUININE.

Equinine, $\text{C}_{22}\text{H}_{30}\text{O} \cdot \text{CO} \cdot \text{OC}_{20}\text{H}_{21}\text{N}_2=\text{C}_{22}\text{H}_{26}\text{O}_4\text{N}_2$, quinine ethyl carbonic acid ester.

Actions and Uses.—Equinine is claimed to have the same action as quinine with the advantage of being tasteless, owing to its insolubility in water and alkaline media. **Dosage.**—The same as quinine. Manufactured by Vereinigte Chininfabriken, Zimmer & Co., Frankfort a. M. (Merck & Co., New York).

EURESOL.

Euresol, $\text{C}_6\text{H}_4(\text{OH})(\text{CH}_3\text{COO})=\text{C}_8\text{H}_8\text{O}_3$, an acetic acid ester of resorcinol (1,3-phen-diol).

Actions and Uses.—Its action is similar to that of resorcinol, but milder and more lasting because of the gradual liberation of the phenol. **Dosage.**—It is applied in 5 to 20 per cent. ointments and in acetone solution. Manufactured by Knoll & Co., Ludwigshafen a. Rh. and New York.

EURESOL SOAP.

A soft soap, supplied in tubes, containing euresol, eucalyptol and oil of turpentine. Prepared by Knoll & Co., Ludwigshafen and New York.

EUROPHEN.

Europhen, $\text{C}_6\text{H}_3(\text{C}_4\text{H}_9)(\text{CH}_3)(\text{OI})\cdot\text{C}_6\text{H}_2(\text{CH}_3)(\text{:O})(\text{C}_4\text{H}_9) = \text{C}_{22}\text{H}_{29}\text{O}_2\text{I}$, a condensation product of molecules of isobutylorthoeresol, with 1 atom of iodine, analogous to Thymolis Iodidum, U. S. P.

Actions and Uses.—Its action is similar to that of iodoform and thymol iodide. It is claimed especially to be useful in the treatment of venereal ulcerations. Dosage.—Europhen may be given internally in the form of pills in doses of from 0.2 to 0.3 Gm. (3 to 5 grains). Locally it may be used as a dusting powder in substance or mixed with an equal quantity of finely powdered boric acid, as an ointment, with wool fat (lanolin), or as a 5 per cent. embrocation, dissolved in olive oil. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

FERRICHTHYOL.

A derivative of ichthyol in which about 2.5 per cent. of iron is contained.

Actions and Uses.—It is said to be alterative, antiseptic, hematinic and tonic. It is recommended in anemia, chlorosis, etc. Dosage.—1 to 2 Gm. (15 to 30 grains) in tablets. Manufactured by the Ichthyol Co., Hamburg (Merek & Co., New York).

FERRIPYRINE.

A name applied to a product identical with Ferropyrine, which see. Manufactured by Fargwerke, vorm. Meister, Lucius & Bruening, Höchst. a. M. (Victor Koechl & Co., New York).

FERROPYRINE.

Ferropyrine, $(\text{C}_{11}\text{H}_{12}\text{N}_2\text{O})_3(\text{FeCl}_3)_2$, a compound of antipyrine and ferric chloride, containing about 36 per cent. of ferric chloride and 64 per cent. of antipyrine. Actions and Uses.—It is hematinic, hemostatic astringent, analgesic and tonic. Its styptic action is pronounced and said not to be accompanied by irritant effects. According to Fraenkel, it combines with its hemostatic properties the injurious by-actions which limit the application of ferric chloride as a hemostatic. Dosage.—0.3 to 1 Gm. (5 to 15 grains) in powder, with sugar and peppermint, or in solution. Externally 1 to 15 per cent. solution as injection, to 20 per cent. solution or pure for hemorrhages. Manufactured by Knoll & Co., Ludwigshafen.

FORMALIN.

A name applied to Liquor Formaldehydi, U. S. P. Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin. (Schering & Glatz, New York).

FORMIN.

A name applied to Hexamethylenamine, U. S. P. Manufactured by E. Merek, Darmstadt. (Merek & Co., New York).

GALLOGEN.

Gallogen, $\text{C}_6\text{H}(\text{OH})_2 \cdot \text{C}_6(\text{OH})_2\text{COOH} = \text{C}_{12}\text{H}_{10}\text{O}_8$, anhydrous ellagic acid prepared from Divi-divi, the pods of *Casalpina coriaria*, containing more than 50 per cent. of tannin.

Actions and Uses.—Gallogen is an astringent and antidiarrheic, slowly decomposed in the intestinal tract, thus exerting its astringent action gradually during its passage. It has been recommended in dysentery, cholera infantum, diarrhea, and is said to be useful even in those of a syphilitic or tuberculous

origin. Dosage—0.3 to 0.5 Gm. (5 to 8 grains) for children; 0.6 to 1 Gm. (10 to 15 grains) for adults, suspended in neutral or slightly acid media. Manufactured by Ad. Heinemann, Eberswalde (C. Bischoff & Co., New York).

GERMICIDAL SOAP.

A solid product containing 2 per cent. of mercuric iodide in combination with hard soap.

Actions and Uses.—It is claimed to be a disinfectant which does not coagulate albumin nor corrode steel or nickel. It is recommended for the disinfection of the hands and for washing out infected cavities. Dosage—Applied externally, dissolved in water. A mild form is also prepared containing 1 per cent. of mercuric iodide; also a soft soap containing 1 per cent. of mercuric iodide. Prepared by Parke, Davis & Co., Detroit, Mich.

GLUTOL-SCHLEICH.

A chemical combination of gelatin and formaldehyde.

Action and Uses.—It is claimed that while in itself non-aseptic, non-irritant and non-toxic, it becomes antiseptic and bactericidal in contact with living cells, in consequence of the elimination of nascent formaldehyde, which is split off very slowly but steadily. Dosage.—It is employed undiluted as a dusting powder, etc. Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin (Schering & Glatz, New York).

GLYCERIN EMOLLIENT.

A mixture containing: Oil of gaultheria, 2 Gm. (30 grains), boric acid, 23 Gm. ($\frac{3}{4}$ ounce) corn starch, 88 Gm. (3 ounces), glycerin 885 Gm. (28.5 ounces), tragacanth, 17 Gm. (263 grains).

Actions and Uses.—It is intended for use as lubricant in gynecologic and surgical practice. Dosage.—It is put up in collapsible tubes and it to be applied to the dry skin. After use it can be washed off in a stream of water. Prepared by Parke, Davis & Co., Detroit, Mich.

GLYCEROPHOSPHATES.

The salts of glycerophosphoric acid, $H_2(CH_2OH.CHOH.CH_2)PO_4$; usually the two remaining hydrogen atoms of phosphoric acid are replaced by the base: $Na_2(CH_2OH.CHOH.CH_2)PO_4$.

Actions and Uses.—These salts were introduced as "nerve foods" and tonics on the theory that their phosphorus, being a step nearer lecithin, is assimilated more readily than that of hypophosphites. Neither the experimental nor the clinical evidence is considered conclusive by all authorities. Dosage.—The potassium and sodium salts may be given hypodermically 0.2 to 0.25 Gm. (3 to 4 grains) in normal saline solution, or *per os* 0.25 to 0.65 Gm. (4 to 10 grains) in water or syrup. The calcium, iron, lithium, magnesium and manganese salts 0.2 to 0.65 Gm. (3 to 10 grains) doses, preferably in the form of tablets; the quinin salt in 0.1 to 0.33 Gm. ($1\frac{1}{2}$ to 5 grains), and the strychnine salt in 0.001 to 0.003 Gm. (1-60 to 1-20 grain) doses.

BOOK REVIEWS

THE PRACTICAL MEDICINE SERIES. Vol. 2. General Surgery. Edited by J. B. Murphy, A. M., M. D. The Year Book Co., Publishers, 40 Dearborn Street, Chicago.

This volume is a review of the literature of general surgery for the past year. In it one finds references to nearly every important advance made in surgery during this time. The present volume contains nearly six hundred pages and should prove useful to the surgeon as well as the practitioner.

HOWARD HILL.

THE CARE OF THE BABY. By J. P. Crozer Griffith, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. *Fourth Revised Edition*. 12mo of 455 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$1.50 net.

The fourth edition of Griffith's Care of the Baby is an improvement over the others and the many new illustrations add materially to the volume. The subject generally is treated from an ideal standpoint, which makes a large part of it impossible of application, on account of the expense. But ideals are necessary in medicine if we would get the best results, more particularly in dealing with infants and children where a large range is oftentimes necessary.

We are particularly glad to note that the very prevalent ideas concerning "maternal impressions" are exploded. In fact, students of our text books on obstetrics would do well to read the chapter on "Before the Baby Comes."

There are many other excellent points in the book, but generally considered it is quite beyond the comprehension of the majority of mothers. Still there is much that they can understand and they are so constantly advised not to assume responsibility, but to call in a physician that even to them it is of great value. The addition of the appendix on infant feeding greatly strengthens the book.

Taken as a whole this greatly improved new edition will fill a much needed want, not only with nurses but to a large extent with mothers as well.

J. E. HUNT.

PHYSICAL DIAGNOSIS. With Case Examples of the Inductive Method. By Howard S. Anders, A. M., M. D. Professor of Physical Diagnosis, Medico-Chirurgical College, Philadelphia; etc., etc. With 88 illustrations in the text and 32 plates. New York and London, D. Appleton and Co. 1907.

In our age of chemical and microscopical diagnosis, both student and practitioner are altogether too much inclined to disregard the

value of a careful physical examination. It is obvious that we have no right to neglect any one procedure which would enable us to arrive at a correct diagnosis, and for practical purposes, the physical examination, which does not require any complicated and cumbersome apparatus, should remain the one procedure of prime importance. In a most interesting and attractive manner the author presents in this volume the so-called inductive method which, better than any other, will counteract that superficial and hasty zeal of the average student to get at the physical signs and the diagnosis somehow, but without patient and methodic practice.

A MANUAL OF PERSONAL HYGIENE: Proper Living upon a Physiologic Basis. By Eminent Specialists. Edited by Walter L. Pyle, M. D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. *Third Revised Edition.* 12mo of 451 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$1.50 net.

The manual sets forth the best means of developing and maintaining physical and mental vigor. Throughout the book one finds a concise but adequate discussion of the anatomy and physiology of the parts under consideration. In response to a growing demand this valuable manual has been revised and now appears with many new additions in its third edition.

DIAGNOSTICS OF DISEASES OF CHILDREN. By LeGrand Kerr, M. D., Professor of Diseases of Children at the Brooklyn Postgraduate Medical School. Octavo of 542 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

This work differs from all others on the diagnosis of children in that objective symptoms are particularly emphasized. The author believes that as the objective symptoms are the main source of information in diagnosing children's diseases the subject should be discussed with these symptoms as the foundation. The illustrations are good and add greatly to the value of this volume.

THE PRINCIPLES AND PRACTICE OF DERMATOLOGY. Designed for Students and Practitioners. By William Allen Pusey, A. M., M.D. Professor of Dermatology in the University of Illinois, etc., etc. With one colored plate and 367 text illustrations. New York and London, D. Appleton and Co. 1907. Price: Cloth, \$6.00.

The author recognizes the fact that it is highly desirable in any study to be thoroughly acquainted with the fundamental knowledge of the subject in order to obtain a satisfactory grasp of the special diseases. He, therefore, has given considerable space to the principles of dermatology, to the anatomy and physiology of the skin, general etiology, pathology, symptomatology and treatment of the diseases of the skin.

DISEASES OF THE LUNGS. By Robert H. Babcock, A. M., M. D., Author of "Diseases of the Heart and Arterial System"; formerly professor of clinical medicine and diseases of the chest, Illinois State University. With 12 colored plates and 104 text illustrations; 809 pages; cloth, \$6 net. D. Appleton & Co., New York, 1907.

This work is a companion volume to that upon the diseases of the heart, published a short time ago. It is one of the most exhaustive and yet comprehensive works on this subject extant. We believe it will prove instructive and helpful to every student and practitioner.

PRACTICAL DERMATOLOGY. A Condensed Manual of Diseases of the Skin. By Bernard Wolff, M. D. Clinical Professor of Diseases of the Skin in the Atlanta College of Physicians and Surgeons; Editor of the Atlanta Journal-Record of Medicine; Ex-President of the Atlanta (Fulton County) Society of Medicine; Ex-Secretary of the Georgia State Commission on Tuberculosis, etc. With 115 illustrations, 266 pages. Published by Cleveland Press, Chicago, Ill. 1906.

This is a practical age and the work of Dr. Wolff is a practical work which will fulfill the mission intended. The specialist as well as the general practitioner will find this volume a desirable aid in daily practice.

MODERN SURGERY—General and Operative. By J. Chalmers DaCosta, M. D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Fifth Revised Edition. Enlarged and reset. Octavo volume of 1283 pages, with 872 illustrations, some in colors. 1907. W. B. Saunders Co. Philadelphia and London.

In this the fifth edition of this work every chapter has been carefully revised, and much new matter incorporated in the text; many recent advances in surgery have been noted. Especially good is chapter 18 which deals with the heart and blood vessels. The author has devoted 19 pages to the consideration of hemorrhage and hemostatic agents. Aneurism is considered along with a description of Matas' operation.

One hundred and seventy pages are devoted to the surgery of the bones and joints. There is a very full consideration of fractures of the region of the elbow, six pages being given to this very important subject. Fracture of the upper end of the femur also receives more consideration than is usual in a single volume work.

The chapters covering the respiratory, abdominal and genito-urinary organs are very complete. The chapter on diseases of the female breast is especially complete. In it will be found a description of Willy Meyer's operation for the removal of the cancerous breast. Mention is made of the younger Senn's incision, but in the reviewer's opinion the incision and the resulting flap devised by J. N. Jackson (Jour. Am. Med. Assn., March 5, 1906) is much superior.

On the whole this work, in less than 1,300 pages, covers the entire field of general surgery in a satisfactory manner. The author has the happy faculty of expressing his ideas in singularly clear and concise manner, and since his book is confined strictly to general surgery he has been able to cover the subject thoroughly. One of the most helpful features of the book is the large amount of space devoted to the symptoms and diagnosis of surgical lesions.

HOWARD HILL.

SCHLEIF'S MATERIA MEDICA AND THERAPEUTICS. A Pocket Text-Book of Materia Medica, Therapeutics, Prescription Writing, Medical Latin and Medical Pharmacy. By William Schleif, Ph. G., M. D., University of Pennsylvania, Philadelphia. New (3d) edition, 12mo. 470 pages. Cloth, \$2.50 net. Lea Brothers & Co., Philadelphia and New York, 1907.

Under this pretentious title Dr. Schleif gives us a very excellent little book, far better and more complete than the majority of this class of works. Usually it is a better investment to spend four or five dollars for a full-fledged Materia Medica, than a dollar and a half on a fledgling. The frills with which this little work is adorned, such as brief paragraphs or a couple of pages on heat, light, massage, medical latin, etc., amount to nothing at all. When it comes to the actual Materia Medica the author shows himself to be a master of his subject, and, so far as is practicable within the narrow limits of his book, covers the ground admirably. He gives us the essentials which we need to know, stripped of all that is non-essential. He is quite conservative in his suggestions as to dosage. He has a positive opinion as to the medicinal effect and the value of the various drugs, which must be very comforting to the young practitioner who has perhaps been under the teachings of some therapeutic agnostic.

A therapeutic index of new remedies, some sixty in number, a table of doses of remedies most frequently administered and a very complete general index go to fill the measure of this excellent work.

E. W. S.

A TEXT-BOOK OF PATHOLOGY. By Alfred Stengel, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Fifth Revised Edition. Octavo of 977 pages, with 399 text-illustrations, many in colors, and 7 full-page colored plates. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

The character of the fifth edition of Stengel's text-book has remained the same. In comparing it with the preceding edition some changes in the chapters on general pathology and in the illustrations are noticeable. The appearance of this new edition is convincing evidence of the recognition this book has received in practically all medical colleges of the country.

HARE'S THERAPEUTICS. A Text-book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, Physician to the Jefferson Hospital, etc. New (12th) edition, enlarged and thoroughly revised to accord with the eighth decennial revision of the U. S. Pharmacopœia. In one octavo volume of 939 pages, with 114 engravings and four colored plates. Cloth, \$4.00 net; leather, \$5.00 net; half morocco, \$5.50 net. Lea Brothers & Co., Philadelphia and New York, 1907.

That any medical text-book should reach its twelfth edition is of itself proof enough of its value and its popularity. In the case of the work under consideration this popularity is well deserved. While giving all the amount of the drugs themselves that is practically needed, the main object of the book is, as its name indicates, to teach the use of drugs as well as of other therapeutic measures in disease. In that part devoted to the use of drugs the author is especially strong; brief, positive and clear in his statements. This is by far the most valuable part of the book. The attempt in 270 pages of text to give the proper treatment for all the diseases to which flesh is heir must, of course, be something of a failure. For a reasonably full discussion of the various diseases of man the medical student and the practitioner must turn to general or special works on practice. We are told in the brief and modest preface, that a considerable number of the recent advances in therapeutic procedures have been introduced, as the value of citrate of sodium in the feeding of bottle-fed babies, the use of calcium lactate hypodermically and by the mouth in hæmophilia and urticaria, etc., etc. Of course all the newer drugs of recognized value are introduced to the reader and the work is generally brought up to date.

E. W. S.

METABOLISM AND PRACTICAL MEDICINE. By Carl von Noorden, Professor of the First Medical Clinic, University of Vienna. Anglo-American Issue under the editorship of I. Walker Hall, Professor of Pathology, University College, Bristol; etc., etc. Chicago, W. T. Keener & Co., 1907. Two volumes, \$6.00 net, per vol.

An English edition of von Noorden's famous "Lehrbuch des Stoffwechsels" does not require any special introduction. The subject is covered in two volumes. The first is written by Adolf Magnus-Levy, of Berlin, and is entitled "The Physiology of Metabolism." The second volume on "The Pathology of Metabolism" is divided into eight chapters, contributed by the following well known authorities, besides the editor: Fr. Kraus, Ad. Schmidt, W. Weintraud. M. Mathes and H. Strauss.

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JOURNAL MISSOURI STATE MEDICAL ASSOCIATION

Volume IV

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Number 4

ORIGINAL ARTICLES

CYSTIC DEGENERATION OF THE OVARIES AS A CAUSE OF DYSMENORRHEA.*

BY WALTER B. DORSETT, M. D., ST. LOUIS, MO.

Dysmenorrhea as defined by Dorland is painful or difficult menstruation, and is divided into congestive; inflammatory; mechanical or obstructive (membranous); and spasmodic. Billings gives the different forms as congestive, endometric or inflammatory; intermediate or intermenstrual; mechanical, due to some obstruction to the flow; membranous, in which a membranous substance is passed with menstrual fluid; neuralgic; ovarian; tubal, depending upon narrowness or obstruction of fallopian tubes; and uterine.

To the careful student many of these terms do not clearly state the condition as found in the operating room. Unless a very large incision through the vagina or an abdominal section has been made, a diagnosis of cystic ovary is impossible, except, of course, in very thin subjects and when the cysts are quite large.

While many cases of dysmenorrhea present a variety of signs and symptoms, the ovarian pain in the vast majority of cases is a prominent symptom. So conspicuously has it been shown in many cases that have come under the observation of the writer, that he has opened the abdomen for no other reason than to relieve these symptoms by division of adhesions or by the resection of one or both ovaries.

Before proceeding further let us first decide what these cysts are. What do they contain, and of what are their walls formed? And what is their pathology? Doran declares that ovarian pain is due to sclero-cystic and cirrhotic ovary, the latter being the final stage of the former, and that both are due to inflammation, which is rarely uncomplicated, as cirrhosis without peritonitis has not come under his observation.

Herman says he has treated these so-called ovarian pains by resec-

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

tion and by removal of both ovaries, and the results have been singularly uniform—the immediate results were pleasing—the patients left the hospital delighted, but after a few weeks or months they have returned as bad as ever, except the reflex pain due to dysmenorrhea. His meaning here is somewhat ambiguous, as he does not say what prompted the operative procedures, but admits that the reflex pain of dysmenorrhea remained absent.

Jessett ascribes the pain to cystic ovaries or the ovary with the thick fibrous capsule which, according to the teaching of some, is the same disease in different stages of inflammation.

Coblitz, Marchand, Olshausen, Schroeder, and others are silent on the subject of cystic and scirrhus ovary as a cause of dysmenorrhea and only speak of the condition as being a factor in the etiology of carcinomatous transformation.

There is no doubt in the mind of the writer that these so-called cysts are nothing more than Graafian follicles in different stages of degeneration. The inflammatory condition, irrespective of its pathogenesis, so toughens the enveloping capsule that the normal rupture of the follicle does not take place, and as a consequence of its retention, degeneration of surrounding tissues takes place on account of the pressure.

Since the writer has been doing abdominal surgery his attention has been arrested by the macroscopic appearance of ovaries in cases in which the abdomen has been opened for whatever purpose.

At first he was content with puncturing cysts with a needle or bistoury, but he is now convinced that in order to destroy these cysts, a resection is the better operation.

The ignipuncture of some operators has never appealed to the writer, and the puncture and the pulling out of the lining membrane as practiced by Cannady, of Virginia, does not seem to be an operation of exactness, for the reason that the cyst wall is apt to tear and is not thoroughly removed.

The better plan is to slit the ovary down to the hilus and remove the edges of the incision with the scissors, going to the full depth of the cyst, or scrape it out with the sharp curette or knife blade. The organ, if necessary, can be cut away to the hilus and still enough of it be left to perform its function. This, to the mind of the writer, is the true conservation of the ovary, and from experience he can state that while the results have not been uniformly good, still out of thirty-three cases of which records were kept, eighteen were entirely relieved of the dysmenorrhea; five improved, and ten were no better.

In these cases here enumerated, at least half were what are designated neurasthenics, and were in a poor physical condition at the time of the operation.

When we take into consideration the length of time many of these poor dysmenorrhic women suffer—is it not to be wondered at that

many of them live and do not eventually land in some of the state hospitals for the insane?

It must not be understood from the foregoing that all cases of dysmenorrhea are ovarian in origin, but rather let it be understood that the purpose of this paper is to draw attention to cystic degeneration and cirrhosis of the ovary as a frequent cause of dysmenorrhea that cannot be remedied by topical applications and tonics. If attempts are made along these lines, anodynes will eventually be resorted to with the result of hopeless invalids in which no operation will relieve.

In the study of each individual case of ovarian dysmenorrhea it must be presupposed that a previous ovaritis, simple or complicated, preceded the cystic degeneration.

In the operating room they are more frequently found accompanying displacements of the uterus; in ovaries that are pendulous, and in the cases due to interfered circulation; and in cases of former pelvic peritonitis, as is evidenced by the more or less strong bands of adhesion found on opening the abdomen.

26 Linmar Bldg.

DISCUSSION.

D. C. Lester Hall, Kansas City: I wish to endorse fully what the doctor has said in regard to ovarian dysmenorrhea. I am in a position to know, from a fairly large experience that ovarian dysmenorrhea does exist, and that these small follicular cysts give rise to more trouble in women, more actual pain, than the large glandular cysts, which really give very little trouble until they begin to produce pressure symptoms. It is the practice of all operating gynecologists of recent years to do just as the doctor says he does, and the result is verified in the great majority of cases, as the doctor found, with perfect relief of the patient. I think we do not always get this immediate relief following operation, but in the course of a few months, pains will disappear at the menstrual period, whereas before the patient suffered not only at the menstrual period but intermenstrual periods, from retention of the follicles. There is no topical or constitutional treatment that will relieve this condition, but the marvellous results that follow such resection as the doctor has described, which does not entirely impair the function of the ovary, are most gratifying. In fact, the woman seems to functionate as well after the operation as before. The operation is a rebuke to those men who formerly, and some to-day, for slight cystic degeneration of the ovary, removed the entire ovary. I agree with everything the doctor says, and I want to commend it most heartily to those men who are in the habit of removing these ovaries for slight cystic degeneration; also to those who leave every patient without operative procedure.

Dr. J. D. Griffith, Kansas City: I was exceedingly interested

in Dr. Dorsett's valuable paper. I think it comes home not only to St. Louis men and Kansas City men, but to every one of us. We see these cases of dysmenorrhea, and whenever a mother brings her daughter into my office, at fourteen or fifteen years of age, when she is just beginning to have menstruation, attended or unattended with leucorrhea, absolutely the picture of health in every other way, I shudder; that is the way I feel. I feel like I wish I had never heard of medicine. It brings up the question, what would you want done if this was your own daughter. If there is no cystic degeneration of the ovaries will not the condition of this uterus with this dysmenorrhea, bring about a cystic degeneration; that is what I mean. In other words, this child, this young girl, has been active in exercise, and has probably thrown the uterus a little backward, or she has been subject to constipation, and with the straining, etc., the ligaments have been pulled upon and relaxed enough so that the uterus has fallen backward, and when she commences to menstruate, you have dysmenorrhea, painful menstruation. You cannot make a satisfactory examination of the child. You do not feel like doing it. You do not want to do it. The mother shrinks from it; the child will shrink from it; you shrink from it. The best you can do is to make a rectal examination. That is all you can do. Here is the uterus, and it has probably leaned a little too far back. You know that after a while interference with the circulation is going to lead to some trouble with those ovaries, that there is going to be hypertrophy, on account of the interference with circulation, and you are going to have cystic degeneration. What are you going to do with these cases? You cannot propose an operation at once. Every doctor in this room that has had any experience has had these cases. What are you going to do with them? Leave them alone, and you are almost sure that they will go on from bad to worse. You don't see them get well, and the woman comes to the time when she is engaged and going to be married, and she is still a sufferer. You have given whatever you chose, viburnum or whatever you chose. It is all the same. They will come back to you month after month. You go to work and try to correct the position of this uterus. Can you do it? You cannot put on the Smith lever with any satisfaction to yourself. You feel like you are absolutely helpless. Let me tell you, this inquiry of Dr. Dorsett's is one that needs to be answered, and I don't know how you are going to do it. I shall be very grateful if some one will give us a remedy for these cases that the doctor is talking about.

Dr. E. F. Robinson, of Kansas City: There is one point which seems to me very important in the consideration of this paper, and that is the question of hysteria. All these patients, or at least a great proportion of them, are hysterical patients. Does then the hysteria cause the symptoms, or vice versa? I cannot but believe

that among the great faults that exist today in modern surgery are some of the operations on our hysterical women. It is very, very common to find every woman who is hysterical believing that she has something wrong with her ovaries, and when she once gets that idea in her head, sometimes even a surgical operation will not remove it for very long. Unquestionably these women have taught us a tremendous amount of surgery, but when we get back to the ultimate fact, are they very much better? I believe that we should be extremely careful of our diagnoses in these cases, excluding as nearly as possible the element of hysteria, knowing the pathological condition before we operate, even, if necessary, giving the patient an anesthetic, avoiding the giving of any more attention than is possible to the ovary in these nervous hysterical women. Conservatism is the word along this line, and certainly it is better to leave a portion of the ovary than to remove it all. Only two weeks ago, I had a note from a patient from whom a pus-tube was removed and a diseased ovary on one side, and a portion of the ovary left on the other side with this tube. That woman today is the happy mother of a very healthy child. Conservatism, then, I would say, and careful diagnosis, avoiding the point of hysteria, and then as much surgery as is necessary, because too much surgery, I certainly believe, is bad surgery.

Dr. H. E. Pearse, Kansas City: I believe the doctor is right in looking beyond the cystic ovary in his survey of the field. I don't think anything in these cases will take the place of the clean surgical operation described by Dr. Dorsett, in which the diseased area is removed. That is a settled surgical fact, and is brought out not by thirty years but in my case by twenty years' practice,—which is about the life of the present surgical and gynecological era. It takes a double view to make pathology, both inside and outside. There is an element here which we must not forget, there is womanhood to treat, as well as the woman. I have found two things in my practice that have helped me with these young girls, where I wish to keep them from the knife, and where the tissues were so soft and disease so recent that there was hope of a cure. The first is in the attention to the breathing capacity of the patient and the application of the rules laid down by Harris of Chicago for the measurement of the abdomen, to see to it that the waist line is in proportion to the length of the trunk. These nineteen and twenty inch waists won't give you breathing space enough. You must remember that the abdomen is a cylinder. A wide waist and a flexible abdomen, with deep abdominal breathing, will give you circulatory relief in these cases, and this means freedom from the so-called inflammatory changes in the ovary, which are not infected inflammation, but errors of development and nutrition. Secondly, as far as medicine is concerned, there are two that will do good. I will mention them,

and the literature and investigations of the past thirty years will help you to apply them: the first is the nitrite of soda, and the other is a proper administration of thyroid gland extract and the extract of other ductless glands in the body, by the use of which you will attract to the ovary that degree of nutrition which will help it.

Dr. Dorsett, in closing: I was somewhat gratified to hear Dr. Griffith say what he did, because his experience was so nearly along the lines that I have travelled, in this matter of knowing what to do for these girls. But the paper dealt more particularly with the after effect of inflammation. It is what the inflammation has produced that we are now considering, and not simply an ovaritis pure and simple, or an ovaritis due to a pelvic peritonitis, but simply the condition left after the acute inflammation. I do not believe that any gentleman would treat a case of cirrhotic ovary that had been inflamed a good while ago, in which pathological changes had taken place, as in the case I have described, by topical application; and tonics do no good. You have simply a condition left that has to be relieved, just as we have adhesions sometimes following any pathological condition that we afterwards have to open the abdomen to relieve.

Now, as to whether these cases are hysterical or neurasthenic; I said in these cases here enumerated that at least half of them were denominated neurasthenics, and were in a poor physical condition at the time of the operation. I did not mean for you to infer that the eighteen that were so much benefited from the operation were neurasthenics, but that there were neurasthenics in the thirty-three cases.

The paper drew attention to ovarian dysmenorrhea, and not any other kind of dysmenorrhea. It was cystic degeneration for which I operate, and not for a symptomatic trouble around about the neck of the uterus, as suggested by one of the speakers.

THE SURGICAL TREATMENT OF GLAUCOMA.*

BY JAMES MOORES BALL, M. D., OF ST. LOUIS.

Glaucoma has been defined as increased intraocular pressure plus the causes and results of such pressure. It is a disease which, if untreated, invariably tends to produce blindness.

The causes and pathology of the affection are beyond the scope of this paper. I shall not consider secondary glaucoma, such as follows the growth of intraocular tumors, or a neglected iritis, but will limit the paper to the varieties of idiopathic glaucoma.

The operative measures to be considered may be divided into ocular and extraocular ones; the former class is represented by numerous operations in which the eyeball is attacked, while the latter comprises only the excision of the cervical portion of the sympathetic nerve.

I.—*Ocular Operations for Glaucoma.* From among numerous procedures I will select for your consideration only the following: 1. Iridectomy; 2. Hancock's operation, and 3. Sclerotomy.

1. *Iridectomy.* Up to date iridectomy remains the best and most useful surgical procedure in the treatment of glaucoma. It is applicable to all forms of idiopathic glaucoma, although it is of greatest utility in the acute inflammatory type. It is a valuable procedure in glaucoma simplex, and even in hemorrhagic glaucoma it is capable of giving good results as is shown by Oliver's series of eight cases. Schweigger collected 28 eyes with hemorrhagic glaucoma, of which all went blind and 24 ended in enucleation. Of Oliver's eight cases, iridectomy saved useful vision for three cases for eight, six, and four years respectively; in two cases the disease was held in check for several months.

As regards the usefulness of iridectomy in the various types of glaucoma, Wygodski's statistics are of interest. In an analysis of 458 cases he found that the immediate results were favorable in all cases of the inflammatory type; favorable in 49 per cent. of chronic cases; and also in 90 per cent. of cases of glaucoma simplex. Two or more years after operation he found of 37 cases of acute inflammatory glaucoma 76 per cent. remained improved; 5 per cent. were unchanged; 11 per cent. had deteriorated and 8 per cent. had become blind. Of 147 cases of chronic inflammatory glaucoma, 10 per cent. showed improvement; 40 per cent. were no worse; 30 per cent. had deteriorated; and 20 per cent. were blind. Of 129 cases of simple glaucoma, 1 case remained improved; 16 per cent. continued stationary; 48 per cent. had grown worse; and 35 per cent. were entirely blind. As Jackson

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

remarks, such statistics do not fully show the value of iridectomy, because many of the cases which continued to grow worse after iridectomy grew worse more slowly, and without operation there certainly would have been none that improved and but few that remained stationary.

It is evident that iridectomy is of less value in glaucoma simplex than in the acute inflammatory and the chronic inflammatory types.

I have always felt that in many cases of glaucoma simplex the prolonged use of miotics resulted in the loss of valuable time, and that such medical treatment not infrequently resulted in blindness in some cases, which, if given the benefit of an iridectomy at an early date, would retain useful vision. For many years I have performed iridectomy on practically all cases of glaucoma simplex that have come under my care, and fully 60 per cent. of these cases have retained useful vision. I am pleased to know that Berry, of Edinburgh, stands with me in this matter. At the meeting of the ophthalmic section of the British Medical Association in 1904, he came out strongly in favor of iridectomy in glaucoma simplex. In the discussion of Berry's paper, Uhthoff said that in his cases of glaucoma simplex 5 per cent. improved after iridectomy; in 45 per cent. the disease remained stationary; in 40 per cent. the disease advanced slowly in spite of operation, and in 10 per cent. the vision grew much worse.

Although iridectomy gives the best results if done early, before vision is much reduced, yet at times astonishing improvement occurs in cases which are apparently hopeless. A case in point is as follows: Mrs. J. F. D., aged 51 years, was brought to me on September 27, 1905. Vision had failed rapidly for four weeks. She has had "neuralgia" in the face and eyes for the same period. Atropine had been used by her medical attendant. When I first saw her, vision in each eye was reduced to perception of light. The globes were hard, the pupils dilated widely, and the corneae looked steamy. Regardless of the unfavorable outlook, I made a broad iridectomy temporally on each eye, hoping the patient would gain enough vision to enable her to dispense with the services of a guide. The after-treatment was simple, the eyes were dressed daily and a solution of adrenalin chloride was instilled. The improvement in this case was progressive and astonishing. On January 25, 1906, she returned for glasses. The vision of each eye without glasses was 15-200. With glasses:

R. E. with plus 4.50=15-50; L. E. with plus 3.50 combined with plus 1.00 axis 90°=15-35. With stronger lenses she was able to read the ordinary magazine type.

A point which I wish to emphasize about iridectomy for glaucoma is that the operation should be made always under a general anesthetic. The pain is such, and the difficulties attending the making of a technically correct glaucoma iridectomy are so great, that the use of a local anesthetic alone is not justifiable in this disease. I have

always employed a general anesthetic, preferably chloroform. I am sure that some of my confreres who have operated under local anesthesia have troubled consciences.

In performing the operation the keratome should be introduced 1 to 2 mm. behind the corneo-scleral junction. Your books will tell you to remove a large piece of the iris. I have found by experience that the size of the piece to be removed is of much less importance than is the site of the incision.

2. *Hancock's Operation.* Many years ago Hancock, a London surgeon, acting on the erroneous theory that glaucoma is due to spasm of the ciliary muscle, producing stasis of the intraocular circulation, proposed and often practiced the operation which bears his name. It is a cyclocotomy or sectioning of the ciliary muscle. The operation is not described in any of the modern text-books except my own. It is made by passing a Beer knife with its cutting edge outward into the corneo-scleral junction, extending the incision into the sclera for one-fourth of an inch. Thus the following structures are cut: the periphery of the cornea, the periphery of the iris, the ciliary body and the sclera. Immediately the aqueous humor escapes and a bead of the vitreous humor appears in the wound. Pollak, the pioneer oculist of St. Louis, saw this operation performed by its originator. He practiced this procedure for forty years and said of its use in glaucoma: "A few seconds only are required for this operation. The relief from increased tension and pain is instantaneous. The lens recedes to its normal position, the pressure upon the ciliary processes is removed, the iris being freed from pressure soon resumes its normal place, the spaces of Fontana are gradually opened, and so also is the canal of Schlemm."

As regards Hancock's operation, I am convinced that it has a distinct place in the treatment of glaucoma. The following case will show its usefulness. Mrs. Mary Harris, aged 54 years, was seen by me in consultation on July 14, 1906. Six weeks ago she became suddenly blind. She was not treated for one week. Then Dr. G.—, a general practitioner, was called who used atropine twice a day. When I first saw her, vision was limited to perception of light and the tension of each eye was plus 3. The same day under chloroform I made an iridectomy on each eye. Two days later the tension of the right eye was plus 2, while that of the left eye was about normal. The following day I made Hancock's operation on the right eye. Result. Mrs. H. can read with the right eye; the vision of the left eye has not improved.

In absolute glaucoma, where pain makes the patient's life a burden, it is considered good surgery to remove the offending organ. In a number of such cases I have succeeded in avoiding this mutilation by performing Hancock's operation.

3. *Sclerotomy.* This operation was introduced by Quaglini in

1871, for the reason that some leading ophthalmic surgeons believed that the beneficial effects of iridectomy were due, not to the excision of a piece of the iris but to the incision in the sclera. A sclerotomy may be anterior to the iris or posterior to this structure. A few ophthalmic surgeons prefer sclerotomy to every other kind of surgical intervention in glaucoma. De Wecker was an advocate of anterior sclerotomy which he performed in a peculiar manner. Among the French oculists of today, Abadie is opposed to the operation, while Dianoux uses it in every form of glaucoma. Posterior sclerotomy was advocated by William Mackenzie, of Glasgow, in 1830. Without wearying you with the various modifications of what is really a very simple operation, I will say that my experience with sclerotomy has not been favorable. I sometimes make a posterior sclerotomy a few days before performing iridectomy, in cases where the execution of the latter operation is almost impossible on account of the practical obliteration of the anterior chamber. Here a sclerotomy causes the chamber to be restored and thus enables the surgeon to make an iridectomy under favorable conditions.

It is only fair to state, however, that Lawson who has had a large experience in London, considers sclerotomy a valuable operation in the following conditions:

1. In cases of glaucoma in which a well-performed iridectomy has failed to reduce the tension.
2. In glaucoma occurring in aphakic eyes.
3. In hemorrhagic glaucoma.
4. In glaucoma occurring in eyes with a high degree of myopia, because of the liability of intraocular hemorrhage in such eyes.

As regards the dangers of these ocular operations for glaucoma I will say only a word. Given a skillful operator and the proper anesthesia (chloroform or ether for iridectomy; cocain for Hancock's operation and for sclerotomy), there are two dangers: infection and hemorrhage. Up to date I have never had an iridectomy, sclerotomy or Hancock operation infected. I have lost one eye from chorioidal hemorrhage which appeared within a few minutes after the completion of an iridectomy.

II.—*Extraocular Operation for Glaucoma.* Excision of the Superior Cervical Sympathetic Ganglion for Glaucoma. Eight years ago I reported to this society for first excision of the sympathetic made on this side of the Atlantic for the relief of glaucoma. A somewhat extensive experience with this operation, and the leveling influence of time, have served to place this procedure in the class of "last resorts." The operation is immediately followed by remarkable improvement in vision, but unfortunately this improvement does not last in a large percentage of cases. With few exceptions, this operation has not had a fair trial for the reason that the cases in which it has been employed have been desperate ones—cases in which iridectomy

and sclerotomy have proved unavailing. Furthermore, there is good reason for the belief that to obtain the best results it is necessary to remove both superior cervical ganglia, the sympathetic of the one side being connected with the other side by the ganglion of Ribes.

At the present time sympatheticectomy is advocated by a number of competent ophthalmologists. It is the general opinion that it is of greater value in glaucoma simplex than in the other types of this disease. However, further observations will be necessary before the proper place can be assigned to this operation.

4500 Olive Street.

DISCUSSION.

Dr. John Green, Jr., St. Louis: There is one point in connection with Dr. Ball's paper to which I should like to allude, namely, that he seems to regard the use of miotics in glaucoma simplex as of no value. I believe all ophthalmic surgeons are agreed on the inefficacy of miotic treatment in any type of inflammatory glaucoma, the operation of choice being a broad peripheral iridectomy. I am quite certain, however, that iridectomy is not imperatively indicated in all cases of glaucoma simplex. At the last meeting of the American Medical Association, Dr. William C. Posey, of Philadelphia, read an interesting paper entitled "The Treatment of Glaucoma Simplex with Miotics." Dr. Posey is a man of wide experience, and his work with miotics in glaucoma simplex covers many years. He found that the persistent use of miotics, such as eserine and pilocarpin, did retard the progressive loss of vision, and, to a large extent, the contraction of the visual field also. It is absolutely essential that, if the miotic treatment is undertaken, the patient should understand the necessity of continuous, thrice daily instillation of pilocarpin solution, associated with at least a single application daily, of eserine solution. In my own experience, I know of cases of glaucoma simplex that have been carried along ten or fifteen years by the miotic treatment alone. A patient of 60 years of age had been carried up to her death at 73, under the miotic treatment alone, and at the end she was able to read her Bible.

Furthermore, we must not forget the statistics that Dr. Ball presented with reference to the final outcome of iridectomy in glaucoma simplex. As I understand, Dr. Ball agreed with Wygodski, whose statistics show that after the lapse of two or more years iridectomy in glaucoma simplex had permanently benefited only 1 out of 125 cases. Furthermore, the operation of iridectomy in glaucoma simplex is occasionally followed by rapid deterioration in vision, where the deterioration prior to the operation had been slow. Taking all these things into consideration, it seems to me that we should hesitate before undertaking a procedure in glaucoma simplex which may do vastly more harm than the intelligent, persistent, continuous treatment by miotics.

Dr. Ball spoke of using adrenalin chloride after an iridectomy which he did for acute glaucoma. I believe that such a procedure is contraindicated. We have recently had reports of a very peculiar action from adrenalin chloride in glaucomatous eyes. For instance, a case was reported a few years ago in which adrenalin chloride provoked an acute glaucomatous condition in an eye which had previously been in a condition of non-inflammatory glaucoma. It seems to me irrational to run the risk of provoking a further attack of glaucoma by using this agent.

Dr. Llewellyn Williamson, of St. Louis: I would like to ask Dr. Ball to elaborate a little more fully his statement that the extent of the iridectomy was immaterial, but that the site of the iridectomy was the important point. It seems to me that the extent of the iridectomy is very material, not in width but in depth. I believe an iridectomy for glaucoma, to be efficacious, must be a deep one reaching well into the root of the iris.

Dr. Ball in closing: The question of the best treatment for glaucoma simplex has been under debate for many years, and I do not look for it to be settled this afternoon. Every man is entitled to his own opinion, based on his own observation, provided he gives due respect to the opinions of his equals and of his superiors. I have seen a few cases in which there was rapid deterioration of vision in glaucoma simplex after iridectomy. The difficulty attending the miotic treatment is this: that very few patients will carry out faithfully the instructions outlined by the ophthalmic surgeon. Time and again, I have had patients brought to me blind from glaucoma simplex who had been subjected to the treatment with miotics, such as eserine and pilocarpine.

The gentleman who opened the discussion undoubtedly is entitled to his opinion, and he has good reasons perhaps for that opinion, but I stand by the proposition as outlined in the paper.

As regards the question by Dr. Williamson, I mean this—the amount of iris to be excised. Suppose, for example, we say 1-6 or 1-5 of the iris; the excision of that much of the iris in some cases I have found to be technically impossible, without traumatism which would produce cataract, or produce a tearing of the periphery of the iris; and time and again, I have seen those cases in which only a small portion of the iris was removed, but that small portion running far back to the periphery, I have seen those giving excellent results. So that this matter of the 1-5 or 1-6 of the iris to be removed is not nearly so important as the point at which your keratome is to be introduced.

THE TREATMENT OF LOBAR PNEUMONIA.*

BY ORVILLE HARRY BROWN, MT. VERNON, MO.

The mortality from pneumonia is very high. There are no specific remedies for the disease. The treatment must of necessity be symptomatic. To outline a rational symptomatic treatment, requires a familiarity, first, with the pathologic conditions causing the symptoms, and second, with the physiologic action of the drugs which may ameliorate the symptoms. It is with the two latter points that this paper deals.

Most likely the heart conditions demand the closest attention. The obstructed lungs are interfering with the passage of the blood from the right to the left heart, and hence the pulmonary blood-pressure is high, and the right ventricle is required to do more than its usual amount of work, and is very apt to become dilated. The toxemia causes an increased temperature and dilatation of the arterioles, and hence, a low arterial tension and frequent pulsation of the heart. The low aortic tension causes a lessened coronary circulation, and hence a poorly nourished heart. The unusual pulmonary and arterial tensions and the badly nourished heart, are liable to cause an arrhythmia of the heart. The drug which is now used most frequently to counteract the heart conditions is digitalis. This agent causes the heart beat to be less frequent, inhibits the dilatation of the heart, facilitates the flow of the blood through the lungs and produces a higher aortic tension by causing a constriction of the arterioles. The higher aortic blood-pressure causes a better blood supply to the heart. Strophanthus has essentially the same action as digitalis. Strychnine produces only a constriction of the arterioles. Caffein and atropine cause practically the same results on the circulation as strychnine. Saline infusions fill the vessels and increase the blood-pressure, and dilute the viscid and toxemic blood.

Nitroglycerin and the drugs which produce a fall of the blood-pressure are plainly contraindicated. It may be possible, in case of an acute dilatation of the right ventricle, that good would result by a marked dilatation of the peripheral vessels,—thus lessening the amount of the blood going to the right heart. Bleeding may do good under the same condition as when nitroglycerin is of benefit. Alcohol is now held not to be indicated in pneumonia.

The fever in pneumonia is perhaps best dealt with by the cold fresh air treatment, which consists in keeping the patient in the open air, even though the climatic conditions are unpleasant. As well as reducing the temperature the air has its full proportion of oxygen,

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

and hence is much more preferable for the patient than a vitiated atmosphere. The reduced breathing area of the lungs might be compensated for by arranging for the patient an atmosphere with a content of oxygen considerably higher than that of air. But this should be used early and regularly throughout the course of the disease. The toxin is manufactured in the lungs, and is forced into the blood by the respiratory movements. The faster and deeper the breathing, the greater the toxemia is likely to be. Fresh air with its full or an excessively high content of oxygen, would be indicated also from this course of reasoning.

An elimination of the toxin is best stimulated by a regular taking of alkaline waters, liquid diet, and saline infusions.

The toxemic condition of the blood renders it acid, and it has been proven that an animal stands oxygen deprivation better if its cells are bathed in an alkaline medium. Sodium bicarbonate will keep up the alkalinity of the blood.

The coagulability of the blood in pneumonia is much greater than normally, and hence the fibrin content of the blood is high and the viscosity is likewise high,—this tends to make a sluggish flow of the blood through the vessels. Sodium citrate lengthens the coagulation time of the blood. It should be given hypodermically as it is slowly absorbed from the alimentary canal. Sodium citrate is split in the blood into the carbonates which have an alkaline reaction. Hence the citrate of sodium has the triple effect of reducing the coagulability, the acidity and the viscosity of the blood.

The pain in pneumonia may be handled by strapping the side, by giving opium, or by other well understood methods.

Before concluding, a word might be said of the reported excellent results from the empirical use of quinine and iron in pneumonia. Suffice it to say that the reports speak in glowing terms of uniform good results from this method. The patient is given a large initial dose of quinine—50 to 70 gr.—and it is repeated at a later stage if it seems necessary. The administration of the tincture of the chloride of iron is soon begun and is continued during convalescence. It is claimed that this procedure will much reduce the severity of the attack if it does not abort the attack entirely.

By way of summary let it be said that by long odds the one organ which is, above all others, to be carefully watched, is the heart. And after a careful study, first of the conditions influencing the heart, and second of the physiologic action of the remedies which might be thought to be of value, it seems that digitalis comes the nearest to properly sustaining the heart in a typical case. Saline injections,—rectal, hypodermatic or intravenous,—are plainly indicated as additional support to the heart and for diluting the toxin-laden blood. In the cases without tendency for dilatation of the ventricle, strychnine would be more indicated than digitalis. The cold fresh air and the

quinine and iron, in view of the reported good results, may be employed. The treatment of other symptoms than those mentioned need not be discussed further as the opinions concerning them are not so varied. Concerning the preparations of the drugs and their dosage, it is best to use, when feasible active principles in small dosage at sufficiently frequent intervals to get the desired physiologic effects.

DISCUSSION.

Dr. A. B. Cole, Sedalia: The most rational thing that has come into the practice of medicine has undoubtedly been the open air treatment of pneumonia. This is worth more than all we ever knew before and it is a shame that there are yet doctors in the State of Missouri who know this and who have not the backbone to say to their patients that they must do this or that. I know of two cases the treatment of which I lost last winter and I know of one of my fellow practitioners losing a case, because the people did not want a physician who treated pneumonia with an ice bag and the open air treatment. It is a sensible thing because the lung is a double chamber for furnishing certain forces to the body and you cannot carry a man through a distressing attack of pneumonia and permit him to breathe poisoned air. It makes very little difference about the temperature of the air just so it is fresh outdoor air.

Dr. Robert T. Sloan, Kansas City: Like the gentleman who has just spoken, I believe that one of the great advances in the treatment of this disease has been in the administration of an abundance of fresh air, but I cannot subscribe to the process of refrigeration. I don't believe it is necessary that a patient be put in a roof garden or a tree in order to get fresh air, but I do believe in plenty of ventilation. I understood the doctor to repudiate the use of alcohol in the treatment of pneumonia. I emphatically protest against alcohol being laid on the shelf in the treatment of pneumonia. With the exception of opium I believe alcohol is the one drug in the treatment of this disease, which is the greatest slaughterer of all the infectious diseases. It is a beautiful thing, in theory, to speak of the effect of the consolidation of the lung upon the right heart and the accentuation of the pulmonic sound, and it is beautiful to hear how it diminishes day after day, indicative of failure of the ventricle, but as a matter of fact the patient is full of rales which, in the labored breathing, will often entirely obscure the nature of the heart sounds, and you must depend upon the appearance of the patient and the character and rate of the pulse in making your prognosis. It has been possibly my peculiar experience that with but one exception all the cases of double lobar pneumonia I have treated have recovered. That certainly does not support the idea that the amount of lung involved cuts any great figure in the mortality. It is the toxemia that kills and not the obstruction to the flow of blood through

the lung. In one patient the area of involvement may be but half the size of the hand, yet that patient dies, while another may have two-thirds of the lung involved and survive. Furthermore, when the temperature has dropped and the patient is in a refreshing sleep and on the road to recovery, there is practically the same consolidation in the lung as before the crisis. What is the cause of the increased strength of the heart's action? It is the formation of an immunity, the toxemia has been relieved; it is not due to the fact that the heart is no longer obstructed in its action as a pump. Digitalis has been recognized as the ideal therapeutic agent in keeping up the heart's action but I confess I was somewhat staggered when somebody recorded 1,200 cases of pneumonia with a mortality of 3 per cent., the patients having been treated by enormous doses of digitalis leaves. Personally I believe the digitalis treatment is wrong. I don't believe every case of pneumonia should receive alcohol, but when the heart begins to fail, when there is congestion and the appearance of extreme debility, then alcohol should be used, but not as it is ordinarily used. A tablespoonful of brandy every three or four hours? No, give an ounce of brandy to begin with and if this does not have the desired effect, give two ounces; and if still no improvement, give three or four ounces every two hours until you do get the improvement. Under that administration of alcohol I have seen a number of recoveries among patients who, from the examination of the heart, seemed doomed.

Dr. J. M. Allen, Liberty: I do not think pneumonia is such a fatal disease as many consider it. I agree that fresh air is indispensable but I don't agree with the application of cold. I am sure I have saved a few cases by blood letting and maybe I have lost a few, possible lost more than I saved. Twenty years ago I quit both blood letting and the use of whiskey and I rarely lose a case of pneumonia. Now, what is the condition in pneumonia? Half the blood in the body goes through the lung and with every air cell closed and many of the bronchi closed, there is a great decrease in the amount of oxygen that can go into the lung. Therefore, you want more fresh air. Now what is the effect of the alcohol upon the lung? Does it not increase the very thing you want to decrease? Another thing, why give a remedy whose effect is transient? Its effect only lasts forty or fifty minutes and you must keep repeating the dose. You can use another remedy, such as digitalis or strychnine and the effect lasts from four to six hours. Why not use that? The cause of death is the toxemia to some extent. In regard to the heart, I say emphatically that it does increase the action of the right side of the heart very greatly. A solid lung does cut off the blood supply and then for want of oxygen the true toxic condition increases very rapidly. Here is where comes in the value of your heart stimulants and strophanthus has a specific action on the right side

of the heart. You can have a dilatation of the heart in half a day. The moment the muscle begins to relax, just that moment the dilatation begins. There the great remedy is strophanthus in conjunction with digitalis, strychnine and nitroglycerine. There is no tonic to the brain like opium and there is no shock to a man like the beginning of this disease. My first treatment is to give a man opium and calomel and I keep him more or less under the influence of the opium, not to the point of narcotism, giving 1-10 to 1-15 grain of morphine at a dose. Then I saturate the patient with salicylate of soda for twenty-four to thirty-six hours, lessening the severity of the disease very greatly. Then it is a question of endurance, it is a question of how much oxygen you can get in there and how long you can keep the heart pumping. In no disease do I feel that I can bring to bear all the forces of therapeutics as effectively as I do in pneumonia.

Dr. E. H. Miller, Liberty: Such discussions as these put the younger practitioner at sea without a rudder. I am satisfied that there are many men of two, four or five year's practice who have listened to our learned friend Dr. Allen, and to my friend Dr. Moore, whom they have learned to lean upon, and to Dr. Sloan, knowing him deep in pathological lore. Think what effect such a discussion as this has upon the young man. But there is one ray of hope, and that is that therapeutics and pathology are often poor guides in the treatment of many of our diseases. When I returned from New York after a course of study under Loomis I am sure I had in my note book some remedy that would reach each of the various stages of the disease, but in the presence of first epidemic practical experience wiped out all that Dr. Loomis had told me. I had some very fatal cases until I was sickened with the treatment of pneumonia. Then I was called in consultation and met a young man who knew but little about pathology and therapeutics, yet his success had been phenomenal. But finally in one case he sent for me. I asked him what he did for his patients and he said: "I keep the windows open and treat the conditions as they come up. I treat each one individually, but I always give each one plenty of fresh air and plenty of water." Now if some young man would ask me, "to what do you consider your success in pneumonia due?" I would hate to say, "I don't know." When I listen and find but a tiny spot involved and see the patient going down the toboggan I say to myself, what is killing him? I cannot conscientiously say why certain patients die and why others recover, but I do adhere to one thing, I try to keep the pump going. I saw a patient last winter with blue fingernails, pinched features and I gave him oxygen and he drank it like a thirsty child and got well. I can see how you can help a man along with it, yet I cannot see why one gets well and another dies. If there is any one thing in the world that our young

men must do in the treatment of pneumonia, it is that each must pull his own load.

Dr. P. C. Scholz, St. Louis: These men do not disagree in their method of treatment. It does look that way on the surface but it is not really true. One question of importance is, where are you located and who applies your remedies—if such they be. Those who are close observers of the conditions in which digitalis and its relations are given, give these remedies with flattering results. If you do give digitalis and expect success you must give it in large doses. Again, where do you practice? Have you a competent nurse, or have you a nurse at all? The advocates of digitalis are located where they have competent assistants and these are enthusiasts on digitalis. Those who must depend upon a mother or feeble grandmother as a nurse have many failures. The application of the remedy depends upon the circumstances under which it is applied. You can rely upon your friend strychnine but be careful about your alcoholics and administer alcohol early and persistently. In an ailment is the observance of and attention to throat, mouth and nose of greater importance.

Dr. Brown in closing: The symptomatic treatment of any disease is always a debatable question, and the treatment of pneumonia, which is as yet wholly symptomatic, is perhaps more debated at the present time than that of any other disease. The two factors of the disease which must necessarily be considered are the mechanical obstructions to the circulation, and the toxemia; in some cases one of these conditions, and in some the other, predominates. We may have a case in which the toxemia is not very deleterious, but in which a large portion of both lungs is involved, thus, obstructing the flow of the blood from the right heart to the left and hence overloading the right heart. On the other hand we may have a case in which only a small area of the lungs is involved, but in which the toxemia weakens the heart action by interfering with the oxidative processes in the blood and also by causing a dilatation of the arterioles, and hence a low arterial tension. Since the blood supply of the heart comes from the aorta it is of extreme importance that the aortic blood pressure be kept as near a normal tension as possible. Digitalis, strophanthus and strychnine are undoubtedly the three best drugs for this purpose. Preference is usually given to these drugs in the order named. Alcohol does not raise the blood pressure except temporarily, but rather has a tendency to lower it and hence is contraindicated.

As a final word it must be said that since no two cases are alike it is impossible to lay down a rule which will hold for every case. You must study your cases and treat each one according to the conditions found.

POSTURE IN LABOR.*

BY W. B. DEFFENBAUGH, M. D., ST. JOSEPH, MO.

For indulging in the ghoulish business of resurrecting this subject, I trust that you will pardon me. While I know this subject has been settled in the minds of most gentlemen present, and in practice a routine method is followed which gives satisfactory results to the attending physician, candidly couldn't the results, so far as the mother is concerned, occasionally be improved upon?

This attitude of contentment on the part of the physician is justified by the oracles of obstetrics, "The Wise Men of the East," who write most of our excellent text books on the subject, for in the majority of them the subject receives scarcely more than a passing mention. 'Tis true that in operative work and in difficult cases, the proper positions are indicated, but wouldn't it be better to speak more fully on the subject.

From a not inconsiderable experience in the practice of obstetrics and observation of the customs of other physicians, I know that most labors in this country are conducted with the woman flat on her back, with thighs flexed on the abdomen and legs on the thighs. The best that can be said of the position is, it might be worse. For with the woman in this position until such time as a firm engagement of the presenting part occurs, the promontory of the sacrum causes the uterus to assume one or the other of the lateral positions, usually the right, in which position the direction of the uterine force is not in the line of the pelvic outlet, and therefore expulsive force is wasted.

Would it not be better to have this woman occupy a position in which the body was on an incline, say of 45 degrees, and thereby conserve force, and get the benefit of the weight of the child's body in dilating the parts below? This, for tardy labors.

Again, after a firm engagement of the presenting part, with the woman lying on her back, the weight of the child is largely thrown on the spinal nerve supply of the rectum and this causes an extra expulsive effort on the part of the woman, and, if she has a justo-major pelvis, a possibly precipitate labor, and torn perineum with the untoward after effects may result. If that woman was turned on her side with hips elevated, expulsive efforts would be more easily under voluntary control, and more ready assistance could be given in the preservation of the perineum, and a tear much less apt to occur. This, for precipitate labors.

In the order of frequency following tardy and precipitate labors, some abnormal position of the child demanding turning, is per-

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haps the next most common condition demanding assistance. The contra-indications to turning are tetanic contraction of the uterus, and the impaction of the child in the pelyvis. The first condition cannot be overcome by position, but the latter may, and for the relief of this condition several positions are available. For the relief of the impaction, the knee-chest position is probably the most favorable, but it has as drawbacks, uncomfortableness to the patient, and furthermore it is a position that cannot be maintained by the patient, when an anesthetic is given; and again most efforts at turning can be but imperfectly performed with the patient in this position. The latero-prone position, with the hips elevated, is a posture more favorable for the success of turning and offers nearly as good results in overcoming impaction, and relaxation may be assisted by an anesthetic, if needed, in this position. In merit, it stands midway between the knee-chest and modified Trendelenberg positions. The Trendelenberg position, with the body on the incline, with the head low and buttocks elevated, with legs hanging over the elevated end of the table, is a wonderful help in abdomino-pelvic operations, but on account of their tenseness the abdominal muscles interfere with external manipulations, and as the patient lies on the back, the perineum cannot be pushed back; there is therefore but little room for the introduction of a hand in combined versions. The limbs, too, occupying a line on a plane with the upper axis of the pelvis, interfere with the lateral motions sometimes needed.

I must think, therefore, that the Trendelenberg position has but a limited field of usefulness in obstetrics proper. If, however, you will modify the position by putting the patient in the Trendelenberg position, then flex the thighs upon the abdomen, you have an ideal position for the relief of impaction and for relaxation of the abdominal muscles, and at the same time you increase the diameter of the outlet and get the limbs out of the way.

In impaction, pelvic in character, either of these postures will be of assistance in overcoming the condition but I must give a preference for the modified Trendelenberg.

In the reposition of a prolapsed cord, either of the positions are available, but as you may wish to use the forceps, at the time of replacing the cord, it is easy to let your patient down from the Trendelenberg into the lithotomy position which is the most convenient for most of us in the use of forceps.

In cases in which the child's head will not engage, and yet in which there is but a slight disproportion between the head and the superior strait, the Walcher position, with the woman drawn with the buttocks flush with the edge of the table and limbs and feet unsupported, gives from 1 to 1½ cm. in the upper strait and may be the means of causing an engagement.

Here, we have in addition to the increase of space, increase of

muscular tension and therefore intra-abdominal pressure, both factors in causing the engagement. In the high application of forceps, this position is most favorable to their successful use.

Finally, in a relatively large proportion of cases, when labor is slow from either a relative or actual large size of the foetal head, or from a rigidity of the maternal soft parts, the bony outlet is increased by a strong flexion of the thighs upon the abdomen and the labor is terminated more quickly by this position, but this increase in the bony pelvis is not often needed, the muscles are not affected by the position, but the skin is rendered much more tense and therefore liable to tear, and when a tear is started in the skin it easily extends to and into the muscles.

It is true that we may have a subcutaneous rupture of a muscle, but such occurrences are relatively infrequent, in comparison with tears which begin in or with the skin and extend into or through muscle.

As a protection against tears of the perineum, when they seem imminent, an extension of the thighs will frequently prevent them.

In conclusion, permit me to summarize as follows:

1st. In the average case of labor, the woman will do well, in any posture.

2nd. In tardy labors, due to inefficient uterine contractions, the woman will do best who most nearly assumes the upright posture.

3rd. In precipitate labors, the converse is true, and the elevation of the hips, with the patient on her side, is the best posture.

4th. In impaction, that position which by gravity helps to overcome the condition and lessens the field of operation, the abdomen relapsed and in the best attitude for bi-manual work, is best and for this we have the modified Trendelenberg posture.

5th. When engagement does not take place, and yet the disproportion between the presenting part and the diameter of the superior strait is not too great, or in any condition in which we wish to increase the diameter of the superior strait, we would have recourse to the hanging or Walcher posture.

6th. When from a relative disproportion between the size of the presenting part and the vulvar outlet, or when on account of a rigidity of the perineum, we fear a tear, we would recommend an extended or modified Walcher posture.

SOME INJURIES OF JOINTS.

BY W. A. SHELTON, M. D., KANSAS CITY, MO.

In the strenuous life of the average American of today, this unfortunate condition is so frequently met with, that it behooves the surgeon to familiarize himself with some of the salient points in injuries of joints. Still another reason for the renewal of this old subject is the fact that fully sixty per cent. of all mal-practice suits have their beginning in results, bad or otherwise, arising from a dislocated hip-joint, a fractured knee cap, etc. In short, there is no class of injuries which a surgeon approaches with more doubt and misgivings, or one which demands a greater amount of ready knowledge, self-reliance and skill. Constant in their occurrence, and often extremely difficult of diagnosis and management, they frequently involve consequences hardly less serious to the surgeon than to the patient himself. I certainly know of no subject which requires a more thorough knowledge of topographical anatomy, a nicer sense of discrimination, a calmer judgment, a more enlarged experience, or a greater share of vigilance and attention; in a word, none which demands a higher combination of surgical tact and power. As for myself, I never treat such a case however simple, without a feeling of deepest anxiety in regard to its ultimate issue. Hence the importance of the subject is at once appreciated by all of us.

The joints, although well arranged to resist violence, none the less, as parts of the body in which mobility is greatest, naturally form weak points in the economy. As this is a very extensive subject, it shall be the purpose of this paper merely to mention a few of the injuries of joints, and to dwell more fully on fracture—dislocations of the upper extremity. Simple contusions of joints are often seen, as are also sprains, and it is sometimes very difficult to distinguish between sprains and dislocation. The special importance of these injuries lies however in their relation to the various constitutional diatheses, wherein a very slight injury may lead to most serious results. Tuberculous disease of the joints is a striking example which dates from an injury often marked by insignificant immediate results.

Shoulder Joint. Injuries to this joint occur almost as frequently as all other joint injuries combined (about 50 per cent.) The articulation between the head of the humerus and the glenoid cavity of the scapula surpasses every other joint in the body in freedom of range and variety of movement. The shallowness of the cavity, the size of the head, the laxity of the capsule and the want of direct support of the structure at its lower and inner part, and the fact that the

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movement of abduction of the humerus is normally checked mainly by tension of the capsular ligament, all explain the great frequency of this accident. In this, as in all other joints, the all important feature in dislocation lies in injury to the capsule. The location and size of the rent often determine the direction taken by the displaced humerus, and again, a small rent may make the reduction a very difficult procedure. Sometimes the capsule is not torn, its laxity allowing the head to slip below the cavity at least one inch. Besides injury to the capsule, varying degrees of laceration may occur in the structures surrounding; such as ecchymosis of the skin (more marked when injury is due to direct violence), rupture of artery or vein, which may be followed by gangrene of the limb, thrombosis or death from internal hemorrhage, and occasionally we have fracture of the bones themselves. Nerves usually escape injury.

In dislocation of the shoulder, the head of the humerus naturally takes one of four directions: (1) Upward, (2) Downward. (3) Backward. (4) Forward. The first is very rare, if it ever occurs. The second is more frequent, and the head of the humerus rests in the upper part of the axillary border of the scapula, on the long head of the triceps, which is sometimes lacerated. The deltoid is very tense, and both tuberosities may be fractured. Usually there is injury to the circumflex nerve and axillary artery. In the third variety, the head of the humerus usually rests back of the acromion, or below the spinous process of scapula. In the fourth, which is by far the most common, the head is just under the coracoid process. In this position it is above the tendon of the subscapularis, which is either torn or stretched over the neck as a tense band and may hinder reduction. The short head of the biceps and the coraco-brachialis cross the inner part of the head. The long head of the biceps usually remains in its groove. The axillary vessels and nerves are seldom injured, but are pushed forward and inward between the subscapularis and pectoralis major. Sometimes the head may pass further internally, and rest on the second rib and serratus magnus under the clavicle. This condition is usually accompanied by more severe muscular and ligamentous injuries than the other varieties, especially in rupture of muscles surrounding the capsule, separation of the great tuberosity, and displacement of the long head of the biceps. The phenomena seen in such a dislocation is best illustrated in the case of Mr. J. Aet. 40. Carpenter. Engaged in a fight, March 24, 1907. I saw him ten hours after injury, and after two unsuccessful attempts at reduction without an anesthetic had been made. The left shoulder was badly swollen and very painful, and depressed. A yard stick placed on the outside of the humerus was made to touch both the acromion and the outer condyle at the same time. It was well nigh impossible to make the elbow touch the chest wall when the left hand was placed over the right nipple. Measurement around the right shoulder was

seventeen inches, around left, eighteen inches. The anterior and posterior axillary folds were lowered, and the cavity shallowed. The head of the humerus could be felt just internal to the coracoid process, but not distinctly. With slight force, I could rotate the humerus internally to a small degree, and the limb seemed more movable than is usual in such cases. I anesthetized the patient, and proceeded to reduce the dislocation, which appeared to be what some authors call the subclavicular variety. As for the methods of reduction, the books describe quite a number, such as Kocher's, Smith's, Cooper's, etc., which are all good no doubt, but the main thing in all reductions is to first relieve the tension on the surrounding structures, by an anesthetic, and the rest is comparatively easy. After complete anesthesia, and the assistant immobilizing the scapula, extend the arm, elevate it, and at the same time making traction, manipulate the head with the other hand, and then quickly lower, internal rotate, and place hand on opposite shoulder. In this variety, with these movements the tense posterior part of capsule will pull the head in to the glenoid cavity. I usually place the arm in the same position as I would for a fracture of the outer part of clavicle, keeping it in this position for two or three weeks, giving the surrounding parts a complete rest and a chance to return to a normal condition.

In the case of Mr. J., I was called to see him some five or six hours after I had followed this procedure. He was in severe pain, and the bandage was so tight I had to remove it. I saturated absorbent cotton with a hot lead and opium solution, and afterwards placed on a large amount of cotton batting to retain the heat. When I first examined him, I found that ecchymosis had extended to elbow and all over shoulder and pectoral region. Numbness was in fingers showing injury to median nerve. With constant application of the lead and opium solution, for about five days, the swelling and pain gradually subsided, and I again placed the arm in the position outlined by Velpeau. I removed the dressing at the end of the second week, and placed the arm in a sling. At this time I noticed a flaccidity of the deltoid, and an apparent looseness of the joint, with inability to raise the arm at right angles, and to rotate it outwards. On grasping the humerus, and rotating it, I thought I detected a slight crepitus.

From the fact that he was unable to lift the arm at right angles, or to turn in outwards, I thought possibly the great tuberosity was fractured, so I advised x ray. Dr. MacCandless took one exposure which plainly explained the trouble, as the great tubercle was seen detached from the upper part of the bone, causing a loss of action of the teres minor, supraspinatus, and infraspinatus muscles. I placed a small pad under the axilla, and a heavy pasteboard cap over head of humerus, and held the same tight by adhesive straps; after three weeks I began passive motion, and now he has fairly good use of his arm.

Elbow Joint. Fracture—dislocations of this joint form a subject of very deep interest, not only on account of their frequency, but because of their great liability to serious complications, and the consequent difficulty of their diagnosis and treatment. The diagnosis of such injuries is often difficult from the amount of swelling that quickly follows. Hence a good rule is to use the x ray whenever obtainable. Dislocation of both bones may occur backwards, forwards, or laterally. The frequency, is in the order just named. There is always great deformity at the elbow, and the forearm is generally in a partly flexed and pronated position. Sometimes the joint is absolutely immovable, probably due to the position of the coronoid process in the olecranon fossa. At the posterior part of the joint is the unnatural projection formed by the olecranon, and in front are the prominent condyles of the humerus. The distance between the elbow and wrist is diminished (probably an inch), in front, but behind the limb retains its normal length. When the humerus is fractured just above the condyles, the deformity closely resembles that produced by a dislocation backwards, the lower fragments with radius and ulna being drawn in that direction. In dislocation the parts are fixed and cannot be restored without considerable force; whereas, in fracture they are easily moved and replaced, returning however, to their unnatural situation the moment the efforts are discontinued.

Fracture of the olecranon can always be distinguished by the elevation of the upper fragment, and the gap which separates it from the lower, and by the ease with which the surgeon can bend the arm.

Always compare the other arm, especially the elbow. In an extended position, the outer and inner condyles and the tip of the olecranon are in a horizontal line to the axis of the humerus. The head of the radius is just beneath a slight dimple on the posterior part of the elbow below the external condyle. These are points to always bear in mind in dealing with any injury of the elbow-joint. In the backward variety, the elbow is slightly flexed, and the diameter of the arm above the joint is increased. The condyles, more especially the inner, may be separated. Pronation and supination, and flexion to a right angle, may be made; but practically no extension is possible. Forward dislocation is exceedingly rare, and probably never occurs without fracture of the olecranon. In outward dislocations, the forearm is slightly flexed, the radius usually strongly pronated; and when the limb hangs by the side, the forearm is seen to be abducted and the internal condyle is very prominent. Sometimes the ulna is displaced backward, and the radius forward (divergent), which usually causes slight flexion, and the forearm is half way between pronation and supination. When inward dislocation occurs the elbow is still slightly flexed, and pronated; abduction of the forearm is present and the outer condyle is prominent.

In the divergent variety the whole limb appears to be shortened, manipulation very rigid, and flexion very slight, if at all.

Case I. J. P. Aet. 37. Was scuffling, and sustained injury to right elbow. April 20, 1907. He claimed he had twice before had the same joint injured. When I saw him, the elbow was badly swollen, and crepitus, of the "grinding" variety, was heard. In the swollen condition, I could not make out any thing definite, although I suspected the condyle was detached. I could reflex and extend the forearm, but it caused him much pain. I placed the arm in a temporary right-angled pasteboard splint, and the next day had an x ray taken with the following disclosures.

The plate showed a line of probable fracture, beginning at the apex of coronoid process, and extending for one-half inch in a line parallel with the curve of the sigmoid cavity, thence downwards, separating the sigmoid cavity and the olecranon from the ulna. On the humerus, there is an apparent fracture completely through the epiphyseal line, separating the condyles and articular surface of humerus, but on examining the second plate prominence of internal condyle was found absent, and a circular shadow was seen below, plainly showing its displacement downwards, caused by contraction of the superficial flexor muscles of forearm, and the pronator radii teres. A dim line was seen showing the head of radius, above this the shadow of olecranon was shown, which did not completely fill the olecranon fossa. As I could feel no distinct prominence of the olecranon at the back of the joint, to gain apposition of the epicondyle I placed the arm in a flexed position, using the heavy pasteboard splint. After three weeks I removed the splint, and began passive motion, the patient carrying the arm in a sling. The results are satisfactory.

Case II. I. G., Aet. 9. This case was referred to me Aug. 19, 1907, by Dr. S. E. Wells. I did not see him for some time after the injury occurred, and do not remember now how it was caused. Two views were made by Dr. McCandless. The first was taken from before backwards, showing only a separation at the epiphyseal line, without being able to determine any displacement; marked interference at the extreme end of the olecranon process, where the tendon of the triceps is attached just below, was observed. This might have been easily overlooked in this direction, because of the combined density of the condyle and the end of the olecranon; in the second plate the typical epiphyseal fracture was seen, with dislocation of the distal fragment forward. Here there was no combined density to obscure the sequestra loosened by the triceps tendon. I placed a small pad in turn of arm over the condyles, and then put the limb in a light plaster-of-Paris cast, placed left hand over right shoulder, and then a bandage according to Velpeau, completely immobilizing the arm.

The third plate showed the line of apposition obtained by the flexed position.

September 19. I anesthetized the patient and slowly extended the arm to break up adhesions. He is improving rapidly and carrying a slight weight.

CHRONIC SUPPURATIVE OTITIS MEDIA.*

BY G. E. GWINN, M. D., SPRINGFIELD, MO.

The parts involved primarily and most frequently are the Eustachian tube and tympanic cavity, with the membrana tympani. Later in the disease the attic space, the upper part of the drum-cavity beneath the tegmen tympani may be affected, and finally the mastoid aditus, antrum and pneumatic cells may be involved in the suppurative process in order named.

There is a group of cases in which the chronic suppuration is limited at first to the attic space, with, perhaps, some involvement of the aditus and antrum, the artrum or lower part of the drum-cavity, being free from suppuration and showing a tendency to remain free. These cases are not numerous, but they form a most important class, as they are most invariably attended with necrosis in the head and neck of the malleus and incus. They lead to disease in the mastoid antrum, with risk of further mastoid disease, if not relieved before the necrosis advances backward toward the mastoid, or attacks the neighboring walls of the auto-tympanic space.

Any cause productive of an acute suppurative otitis media is competent to produce chronic otitis media. The most common causes assigned are coryza and the exanthemata, especially measles and scarlet fever, the latter being the most frequent assigned cause. Teething, diphtheria and typhoid fever are sometimes assigned causes of chronic otorrhea, and la grippe leaves with us many discharging ears. It is found in scrofulous, lymphatic, arthritic, hepatic tuberculous and syphilitic disease, and is generally associated with naso-pharyngeal catarrh.

On looking over literature of suppurative otitis media one is impressed with the number of different plans of treatment recommended, and the great variety of medicinal agents in the success of which their respective advocates seem to have implicit confidence, that many cases of chronic suppuration, even of long duration, are cured by these so-called conservative methods is well known to all.

That many cases have been treated by such methods for a long period of time and still continue to discharge, is equally well known. The great majority of cases found in the latter class undoubtedly accounts for the belief found both among the laity and physicians, that little or nothing can be done for discharging ears.

When a patient with a chronic suppurating ear applies for treatment the first question to decide is not what remedy to use, but whether this is a case for conservative or surgical treatment.

As our diagnostic ability increases our reputations will suffer less

*Read before the Harrison County Medical Society.

from unsuccessful attempts to cure surgical cases by non-surgical means. In the present state of our knowledge it is not always possible to determine at the first examination in which class a given case belongs.

The pathological conditions which nature cannot be expected to correct without the help of the surgeon may be enumerated as follows:

- 1st. Bone necrosis, either in the ossicles, attic, antrum or mastoid.
- 2nd. Granulations or polypi within the deeper cavities of the middle ear.
- 3rd. Osteosclerosis of the mastoid.
- 4th. lining of the deeper cavities of the middle ear with epidermus, either with or without cholesteatoma.

Sometimes only one of these conditions is present; again all may be found in a single case. Sometimes the surgical cause of the suppuration is easy and sometimes difficult of recognition. When a surgical cause of the continued suppuration cannot be discovered it is perfectly proper to treat the case conservatively until it is cured or until it becomes apparent that there is some condition present which will require radical measures.

The treatment of chronic suppurative otitis media may be classified as:

- 1st. Mechanical, including attempts at cleansing and drainage of the cavities of the middle ear.
- 2nd. The use of medicinal agents supposed to have germicidal or healing properties.
- 3rd. The use of internal remedies, either for building up the general health of the patient or for their more direct effect upon the suppurative process.
- 4th. The surgical treatment, which includes the removal of granulations or polypi from the auditory canal and middle ear, enlarging the perforation to secure better drainage, ossiculectomy, the removal of the plate of bone between the attic and the inner end of the auditory canal, and the radical or tympano-mastoid operation.

As distinguished from the ordinary mastoid operation, the tympano-mastoid operation includes not only a clearing away of all diseased tissue within the mastoid process, but the removal of the posterior and superior wall of the auditory canal, removal of the drum membrane, malleus and incus, together with the outer wall of the attic. This turns the mastoid, mastoid antrum, attic middle ear and auditory canal into one cavity, which is expected to become lined with skin.

Where to undertake the tympano-mastoid operation for the relief of chronic suppuration is a question which must be settled upon its merits in each individual case, but as a rule such an operation should be resorted to in all cases, which cannot be cured by radical measures. As exceptions to this rule may be mentioned those suffering from well

advanced pulmonary or other organic disease, and the very aged who have had suppurative otitis media for a long time without apparent inconvenience.

In addition to the continued discharge after other plans of treatment have been thoroughly tried, persistent odor is a special symptom pointing toward the necessity of radical operation. Odor means decomposition, and decomposition means accumulation, and accumulation means failure in the efforts to drain or disinfect the deeper parts of the middle ear.

Pain in the ear in the mastoid, or in the side of the head may be slight or severe, may be continuous or intermittent. When present it points toward the necessity of an operation, but the absence of pain is by no means an indication that a radical operation may not be required. The same may be said of temperature, although it is the rule for patients with chronic suppuration, especially with odor, to have slight elevation of temperature at some time or other during every twenty-four hours.

Tenderness upon pressure over the mastoid as a symptom is unreliable, since it is found when the mastoid is not diseased and may be absent when the entire mastoid is necrotic, leaving only the outer table in tact.

However, as a general indication, tenderness on pressure, when taken with other symptoms, points toward surgery. When auscultation of the mastoid by means of the stethoscope and tuning fork, shows any change in the normal density of the bone it is additional evidence of the necessity of operation.

The discovery of necrotic bone in the mastoid or deeper parts of the middle ear is a positive indication for the operation. When the perforation is of sufficient size necrotic bone may be searched for with a probe, or the washings from the ear may be filtered and the debris examined with the microscope for bone cells. When the discharge is slight and evidence of necrosis is found in the ossicles the ossicles may be removed.

The prognosis in such cases is fair, but unless great care is used in the selection of cases for ossiculectomy they will either not be cured or will later submit to a more radical operation.

There is as great danger from a chronic discharging ear as there is from an appendix in which there is pus formation, but too many of the profession do not as yet recognize this fact. Many an individual with such a discharging ear walks the streets or goes about his daily work, who, could he know the danger, would seek his physician.

Macewen calls attention to the fact that such a patient may work at the severest labor up to the very hour of the rupture of an attic abscess.

P. Hammond reports three cases of chronic suppurative otitis to demonstrate the necessity for prompt checking of suppurative process

in the ear. It is not enough that the external discharge of the ear has ceased, as it is possible for the disease to remain latent for years. There must be absolute cessation of crust formation before the ear can be considered safe.

A careful study of cases of long continued suppuration will frequently show diseased bone as a cause of the chronicity. After some experience with the fine silver probes used for this purpose it is astonishing how often we will be enabled to detect the presence of caries of the ossicles, and even to tell with considerable precision its exact location.

J. C. Beck reports a number of cases in which he has experimented with radium. In some cases of suppuration, both before and after operation, repeated exposures to radium rays might have improved the conditions, but the author has been unable to formulate any rules for its application or to foretell with any degree of certainty the result of treatment.

It is rare to have chronic abscesses of the middle ear without more or less complete closure of the Eustachian tube. If this tube is open the abscess will be constantly drained and areated, which condition would of itself tend to produce a cure even without other treatment. The direction of the Eustachian tube is inward, downward and forward, when the body is erect. Consequently if there is an occlusion anywhere along its course the contained pus will be bottled up and only so much of it will escape as can force its way through the drum membrane above the level of the upper portion of the tube. Therefore the abscess can never drain itself completely, but a certain amount of stagnant pus will always be present undergoing putrefactive changes with all its evil consequences.

Syringing the ear as ordinarily practiced for purulent otitis does not cleanse the middle ear and rarely reaches the Eustachian tube. Consequently its value is extremely limited. Syringing the ear may bring about an infection of the mastoid cells, the very thing we most fear and most desire to avoid.

Chronic purulent otitis media is almost always accompanied by a salpingitis of the Eustachian tube, and unless this receives proper recognition it will be impossible to cure the otitis, as it will continue to act as a constant and ever present source of infection for the middle ear.

To maintain an aseptic or antiseptic condition it is imperative that there shall be good and sufficient drainage. This can only be obtained by having the Eustachian tube thoroughly dilated and the opening in the drum membrane as large as possible.

Dilatation of the Eustachian tube may be accomplished by any one of the following methods, preference being given to the order in which they are mentioned:

- 1st. By forcing air into it through the Eustachian catheter by

means of Politzer's air bag, not less than twelve or fifteen insufflations should be given at a sitting.

2nd. By forcing air into it through the Eustachian catheter at a pressure not to exceed twenty-five pounds. The air may be medicated by interposing a vaporizer between the catheter and compressed air tank. For this purpose there is nothing better than iodine. The dilatation should be continued uninterruptedly for a period from five to fifteen minutes

3rd. By means of insufflation with Politzer's air bag and a suitable nose piece without the interposition of the catheter. To obtain the best results the patient should be made to swallow water simultaneously with the compression of the air bag. This tends to open the Eustachian tube and shuts off the passages forward and backward. Twelve or fifteen inflations should be given at each sitting.

There are still other methods such as Valsalva's and the Eustachian bougie, etc., which I will not take time to explain, as the ones already given are the best for dilating the Eustachian tube and bringing about desired results.

THE SURGICAL TREATMENT OF DISEASES OF THE GALL BLADDER AND ITS DUCTS.*

BY J. DEVOINE GUYOT, M. D., JEFFERSON CITY, MO.

There is no region of the human body where surgical treatment is so clearly indicated to the exclusion of all other methods as in the diseases of the biliary organs. The portions of the bile tract accessible to surgical treatment are the hepatic, cystic and common ducts and the gall bladder. A brief resume of the anatomy of the parts may not be amiss.

The hepatic duct is formed by the two bile ducts immediately after their emergence from the liver. It runs in the margin of the gastro-hepatic omentum in front of the portal vein and to the right of the hepatic artery for a distance of about $1\frac{1}{2}$ inches, when it is joined by the cystic duct to form the common duct, or ductus communis choledochus, which continues the course of the hepatic duct in the free margin of the gastro-hepatic omentum, running posterior to the first portion of the duodenum, then to the inner side of the second portion and finally between the head of the pancreas and the duodenum; enters the coats of the intestines, running obliquely for a distance of $\frac{3}{4}$ inch, expands into the ampula of Vater, and, together with the pancreatic duct (the duct of Weirsung), opens into the intestine at the papilla biliaria at a distance of about 4 inches from the pylorus. The gall bladder is situated in the fissure vesicle on the under surface of the liver. It is about 3 inches in length and 2 inches

*Read before the Cole County Medical Society, November 8th, 1906.

broad at the fundus and its capacity is about $1\frac{1}{2}$ ounces. It is pear-shaped, the fundus coming fully to the margin of the liver, and when distended rests on the transverse colon and head of the duodenum. The neck is directed backwards, upwards and to the left and is connected to the hepatic duct by the cystic duct.

The gall bladder is the storehouse for the bile during the intervals of digestion and furnishes one of the constituents of the bile, its mucous membrane being richly endowed with glands. The hepatic and cystic ducts, lying in the free margin of the gastro-hepatic omentum, can be easily palpated for stones. The blood supply is the cystic, a branch of the hepatic artery.

When we enter into a consideration of the diseases of the gall bladder, we are at once struck by the similarity of the symptoms to pathological conditions of the vermiform appendix. In both we have a simple catarrhal, a suppurative and a phlegmonous inflammation. In both we have a circumscribed or general peritonitis and a tendency to rupture with the production of a fatal result.

The diseases of the gall bladder which we will consider are as follows: Simple catarrhal cholecystitis; suppurative cholecystitis or empyema of the gall bladder; acute phlegmonous cholecystitis; infective cholangitis; suppurative cholangitis; cholelithiasis or gall stones.

Simple catarrhal cholecystitis is a well-known and mild affection characterized by slight jaundice, some pain and slight enlargement of the gall bladder though it is rarely palpable. The disease usually yields to medicinal treatment and rarely, though occasionally, requires surgical intervention. However, a large number of cases of simple catarrhal cholecystitis are referred to the surgeon with the diagnosis of gall stones, the patient having suffered violent attacks of colicky pain and vomiting, followed by slight jaundice. These attacks are due to plugs of mucous and not to stones. Some cases of simple catarrhal cholecystitis, however, come to the surgeon, having resisted all forms of medical treatment, no matter how vigorously applied, with a shrunken gall bladder, the coats of which are enormously thickened and the gall bladder filled with a thick ropy mucous which does not contain bile. The proper treatment for these cases is a cholecystotomy with prolonged drainage. The details of the operation will be described later.

Simple suppurative cholecystitis results frequently from an untreated case of catarrhal cholecystitis, or as a sequel of enteric fever. It is characterized by slight jaundice, marked enlargement of the gall bladder and a hectic fever. There is a tendency to rupture and always extensive ulceration of the mucous membrane. In this class of cases a cholecystotomy with prolonged drainage is necessary though if upon inspection the gall bladder is found hopelessly damaged, a cholecystectomy may be necessary.

In phlegmonous cholecystitis we have a truly surgical disease and

one in which medicinal treatment, other than supportive measures, can but lead the patient closer to his grave. Here we have an infection so virulent in nature that the resisting powers of the human organism are totally unable to cope with it and hour by hour the disease marches steadily through the coats of the gall bladder and perforates into the general peritoneal cavity.

With the violent pain of peritonitis, an ashen pallor, a cold clammy skin, and weak, thready pulse, the patient is soon doomed if not relieved by surgical intervention.

These cases demand different treatment according to whether perforation has occurred or not. If seen before the occurrence of perforation a cholecystectomy is demanded. If general peritonitis has occurred Murphy's treatment should be instituted which will be described under technic.

Simple catarrhal cholangitis is merely a violent catarrhal inflammation with jaundice, a slightly enlarged liver and Charcot's fever. These cases usually yield to medicinal treatment though in severe cases an anastomosis between the gall bladder and the duodenum (cholecystenterostomy) may be done.

In suppurative cholangitis we have a more violent infection, with colicky pain, an increasing, never fading jaundice, rapid pulse, enlarged liver, which is very painful, and hectic fever. These cases demand a drainage of the gall bladder and ducts.

It is however in the treatment of gall stones that we find the most contention existing between the internist and the surgeon. And though one might as well try to dissolve Pike's Peak with a bucket of water, many physicians continue to deluge their patients with various salts of lithium, olive oil and what not, in the hope of dissolving these stones.

When closely questioned these men, in imitation of the agent of some new lithium salt, put a stone in a test tube and pour over it some lithium salt and as it slowly dissolves, give a wink of satisfaction and refuse to further discuss the question.

But the body is far more complex than a test tube and maliciously refuses to give up its stones on any such manoeuvre. By the administration of these various remedies he has merely subdued the inflammation, but the stones remain; a condition not to be despised, but there is a subtle sleeping danger which, while it may never again trouble the patient, may bring about a fatal result.

I quote the following from Dr. Bridge's discussion on gall stones from the standpoint of the physician:¹ "We are taking great personal danger all our lives and with the lightest thought, but if one suffering from gall stones to the extent of producing marked symptoms could minimize to the lowest point his danger of death from them he would probably have them dealt with surgically."

Again Dr. John B. Deaver, says:² "I am in favor of removing

gall stones in every case in which they are present provided of course there is no complication which could render a surgical operation injudicious. But when operation is done early in the disease it is so free from danger and the results so satisfactory that it seems to me to be courting disaster to postpone operation in the hope that the symptoms will disappear never to return."

A. W. Mayo Robson³ points out that in his experience the danger of passing a gall stone is greater than operation. Further A. C. Wood⁴ of Philadelphia has reported twenty-two cases of intestinal obstruction from gall stones, and I have myself seen since then a case of death from impaction of a gall stone in the ileo-cecal valve, the stone having ulcerated from the gall bladder into the duodenum. Then too a stone may become lodged in the ampula of Vater forming a ball valve stone, a condition fraught with great danger and high mortality. So we see that viewed from all sides surgical treatment is the treatment of choice and it is the duty of all physicians to urge surgical treatment.

I am aware however that many patients refuse operation. Well and good; they are his stones and if he prefers to keep them and court death that is his privilege and the physician must treat him along the Carlsbad line remembering however that by medicinal treatment he but initiates a period of latency, and that concretions passed after the administration of olive oil are but emulsified masses of that substance.

Operation. If the patient is deeply jaundiced it is well to administer 30-60 grs. calcium chloride for the 24 hours preceding the operation and 60 grs. by enema following operation. This increases the coagulability of the blood and prevents a fatal oozing which is apt to occur in these cases.

We make Bevan's incision which extends from the cartilage of the eighth rib along the side of the right rectus for a distance of about 5 inches. This is the best incision as it permits of enlargement above and below forming an S shaped incision. The gall bladder is walled off with gauze and if distended is aspirated before it is opened. The gall stones are removed with a scoop or forceps; the ducts are explored by inserting the index finger in the foramen of Winslow and palpating with the thumb. If stones are found in this situation they are worked back into the gall bladder and removed. or if they can not be forced back, the duct is incised and the stones removed, and if possible the duct is sewed; if it is not possible to sew the duct, a drainage tube is inserted to this point and packed with iodoform gauze.

The gall bladder is flushed, the pads removed, and it is sewn to the aponeurosis, never to the skin as a biliary fistula will result; a drainage tube is inserted and left in place until the discharge becomes clear.

The wound is then sewed only by Lembert sutures.

Technic. The operation described for the removal of stones is

that of cholecystotomy. Bevan's incision is made and the cystic duct explored. Gauze pads are packed about the gall bladder and the gall bladder is aspirated. The cystic duct is exposed and tied with two silk ligatures and cut between, the end touched with phenol followed by alcohol. The peritoneum is incised and the gall bladder removed. The ragged edges of the peritoneum united with silk covering the cut end of the cystic duct and reinforced by several mattress sutures. The wound is closed as follows: Silk for the peritoneum, catgut for the muscles and silkwormgut for the skin.

Personally, I do not believe in through and through sutures as used by some men at the present day, as dead space cannot be obliterated unless such force is used as to cause the stitches to cut and there is more danger of infection. In speaking of perforation, I mentioned Murphy's treatment for peritonitis. Heretofore the overwhelming majority of cases of peritonitis died. To-day we save 45 per cent. against a former 1 per cent. Formerly, and by that I mean within the last year, we opened the abdomen, eviscerated the intestines, and inch by inch scraped off the plastic lymph. The entire abdomen was gone over in a like manner and the entire cavity flushed, with the uniform result that 99 per cent. of these patients promptly and unhesitatingly died. Dr. Murphy pointed out that we did too much. In scraping off the lymph we opened millions of lymph channels to absorption that nature had sealed and, by flushing the cavity, diffused the toxic material over the entire abdomen. So we have made a change in our treatment of peritonitis. By this method a reversal of the lymph current takes place and instead of the toxic material being spread over the entire abdomen by flushing, which was poor cleansing at the best, the drainage is thorough and concentrated toward the wounds. It is carried out as follows: Four incisions are made, one in each loin and one in each groin. The intestines are not disturbed nor is irrigation practiced. Drainage tubes are inserted in each incision. The patient is placed in the semi-erect posture and a rubber catheter, connected to a container filled with hot water, is inserted in the rectum so that it will flow drop by drop, the patient so remaining day by day until all symptoms are improved. In a recent case in the Jefferson Hospital, Philadelphia, a case of peritonitis from appendicitis in which the entire cavity was filled with pus, the patient, under this treatment, absorbed 11 gallons of fluid and 9 gallons poured from the wounds in 24 hours. The patient recovered. Murphy reports 73 cases with 45 per cent. cures. So this method recommends itself to the exclusion of all others for peritonitis and while many methods are still being used, the pendulum of condemnation of modern surgical thought is fast relegating them to oblivion and obscurity.

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2. *ibid* vol. 47, No. 16, p. 402.
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A NEW AND SIMPLE METHOD OF TREATMENT FOR WARTS, WARTLIKE MOLES, ETC.

BY HUGO W. BARTSCHER, M. D., ST. LOUIS.

Physicians are frequently consulted by patients who have passed middle life, in regard to moles and warts on the forehead, temple or elsewhere on the face or head. The attention of these patients has, in most instances, been drawn to their moles by signs of activity in them, manifested either by an increase in size or otherwise, and fearing malignant disease, they seek their doctor's advice.

If you suggest removal with the knife your patient will want to think it over, the result being that he will not return. Electrolysis, if feasible, or caustics, if safe, likewise do not meet with approval.

In these cases I use a dressing of a one or two per cent. solution of purest carbolic acid. The application is made in the following manner (by the patient himself):—A pledget of cotton or a piece of lint of sufficient size to just cover the mole, is well saturated with a one or two per cent. solution of carbolic acid and applied to the surface of the mole; this cotton is then covered with a piece of gutta-percha tissue of such size that its edge extends sufficiently beyond the margin of the cotton everywhere to prevent evaporation; the whole is then held in position with a bandage or strips of adhesive plaster. If convenient to the patient the application may be renewed morning and evening; if not convenient, I direct the patient to apply the dressing at night and to apply a little vaseline at intervals during the day. This treatment, faithfully applied as it usually will be, will remove the mole or wart without leaving a scar.

Having used this method, which I discovered by accident, for many years and in a sufficient number of cases, and invariably with success, I feel justified in recommending it to the profession.

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EDITORIAL.

THE STATE BACTERIOLOGIST.

One of the many functions of the Boards of Health of the various states is to provide laboratory facilities to the general practitioners living throughout the state equal to those at the command of the city physicians. For many years the larger cities have placed at the disposal of the physician laboratories that can undertake certain examinations.

In comparatively recent years the lack of such opportunities has been felt by those living away from the cities and the Boards of Health have undertaken to supply the deficiencies. To that end there is in most states a State Bacteriologist, whose duty is mainly to examine specimens of sputum for tubercle bacilli, cultures from throats for the organism of diphtheria and to make the Widal reaction in cases of suspected typhoid fever.

The appointment of a State Bacteriologist is, however, not all that is necessary. He, alone, cannot accomplish much; it is only when in active co-operation with the practitioner that results beneficial to all are obtained. The individuals benefited are the patient, the doctor, and the State. The patient gains the point of an accurate diagnosis of his condition, the physician becomes accustomed to calling to his aid methods that he himself may not have the time or possibly the skill to employ; the State is the gainer in that the less sickness there is the less are the demands made upon it for financial support.

In many instances the patient is unable to pay a private individual for the necessary work, the physician cannot afford it and if he is unable to do it himself the examination is not made and everyone may suffer as a result.

It is at this point that the State must, for its own self-protection come to the front and provide what means it can for the safe-guarding of its citizens. After the means have been supplied it then becomes

not only the privilege but the duty of the physician to avail himself of them. He no longer has any excuse for exposing the community to infection as the result of a mistaken diagnosis, when with a little trouble and practically no expense he can have the necessary laboratory examinations made.

At present when tuberculosis, diphtheria and typhoid fever are so important in their bearing upon the health of a community it is the duty of every physician to do his best to subdue, if not eradicate, the ravages of these diseases. It is the physician who in every city, town and village must watch over the health of his neighbors. All advances in hygiene and sanitation must come through the doctor to the laity. They in turn should become educated to the point of demanding that all methods available for the prompt and accurate diagnosis of disease be employed.

LOCAL SOCIETIES FOR THE RELIEF AND PREVENTION OF TUBERCULOSIS.

Interest in the formation of local Societies for the Relief and Prevention of Tuberculosis is growing and we are glad to remark a considerable activity in this direction among the affiliated county societies. St. Louis has had a society for some time, which is doing most excellent work in extending a knowledge of ways and means to prevent the spread of the disease among that class most afflicted and least capable of protecting itself from infection, both on account of ignorance and lack of necessary means. Ralls County has a good working society and Howard County will soon complete the organization of its society.

Jackson County is in line with a society, organized on September 26th. The initial meeting was attended by many of the prominent citizens of Kansas City, including business men, physicians, ministers and charity workers. The Society purposes to raise sufficient funds to lease land near the city, on which to place a tent colony and later erect a sanatorium for the treatment of incipient cases. Kansas City has purchased land in Clay County to be used for a tuberculosis camp, and Jackson County Medical Society, therefore, will have the co-operation of Kansas City in this work. The officers of the Jackson County Society for the Relief of Tuberculosis are: Dr. R. O. Cross, president; John T. Smith, first vice-president; The Rev. Wallace M. Short, second vice-president; J. W. Frost, third vice-president; E. A. Krauthoff, fourth vice-president; Dr. C. B. Irwin, secretary; Albert Marty, treasurer. Dr. E. L. Stewart is chairman of the Committee on Publicity.

There is no more important move in which our affiliated county societies could engage at this time than that of forming local Societies for the Relief and Prevention of Tuberculosis. In September, 1908, the International Congress on Tuberculosis will convene at Wash-

ington, D. C., and Missouri should be able to report creditable progress in its work. The State Committee of the International Congress for Missouri consists of the following: Dr. H. Wheeler Bond, St. Louis; Dr. W. J. Calvert, Columbia; Dr. Geo. Homan, St. Louis; Dr. Frank J. Lutz, St. Louis; Dr. William Porter, St. Louis; Dr. W. S. Thompson, Armstrong; Dr. Louis M. Warfield, St. Louis.

MAJOR JAMES CARROLL, U. S. A.

The death, in Washington, D. C., September 16th, of Major James Carroll, Medical Department, United States Army, marks the passing of a man to whom the whole civilized world, and especially the medical profession, owes a debt of gratitude; and illustrates, in a striking way, what may be accomplished in our country entirely by one's own efforts.

Major Carroll was a self made man but so thorough was he in all his work that he had placed himself, while yet a comparatively young man, among the few whose privilege it has been to permanently benefit mankind.

Born in England in 1854, he came to this country a poor boy and, at the age of twenty had become so thorough an American that he enlisted in the army and all his subsequent life was spent in faithful service to his adopted country. Beginning as a Private in the 1st Infantry he served through the successive grades of Corporal, Sergeant, and 1st Sergeant and then, at his own request, was appointed to the position of Hospital Steward which gave him a better opportunity to follow the scientific inclinations he possessed.

While stationed in Washington and Baltimore he found time to study medicine and was graduated from the University of Maryland in 1891, later doing post graduate work at Johns Hopkins. Even after receiving his degree he continued in the Army service, being stationed at the Army Medical Museum where he devoted himself to research work.

At the beginning of the Spanish-American war he was appointed Acting Assistant Surgeon and it was in this capacity that his great work in Cuba was done. Just a few months before his death, after vigorous efforts on the part of the organized profession of the country, he was, by special act of Congress, promoted to the grade of Major in recognition of that work.

The investigation, undertaken by the Government, into the etiology and transmission of yellow fever furnished the opportunity for him to show those qualities of courage, self sacrifice, and scientific knowledge, which were his. With the fruits of the work he did there every medical man is familiar; but one who has not lived in the yellow fever zone, and is unfamiliar with the devastation wrought by that disease, can scarcely appreciate the enormous saving in lives and

money resulting from the experiments instituted by Major Carroll and to which he first submitted himself.

Mainly because of his labors yellow fever, which had annually claimed its thousands and made necessary the maintainance of a costly quarantine at all our southern ports, is thoroughly understood; and an application of sanitary measures on the basis of the truths discovered by him is rapidly making it a rare disease. And our admiration for the sublime courage which permitted him to offer himself in proof of his theories and calmly submit to the bite of a mosquito, which had previously bitten three persons suffering with the disease, should be coupled with our gratitude for what he has done for humanity.

The heart trouble which finally caused his death could be traced directly to the illness which followed his voluntary infection and he literally gave his life that others might live. A plain, modest, unassuming, man, his entire life is a shining example of thorough, painstaking work and conscientious devotion to duty. And in laying down his earthly burdens it must have been some satisfaction for him to feel that he had alone and unaided, not only brought himself to the foremost rank in his profession but that the benefits of his work would be felt by every succeeding generation.

THE ST. LOUIS MEDICAL SOCIETY.

The St. Louis Medical Society has revised its constitution and by-laws and made some very important changes in its provisions. The new constitution provides for the division of the Society into sections and limits the meetings of the general body to twice a month. Each of the various sections will meet probably once a month, though no limitation is placed upon the number of meetings. The sections will elect their officers and provide rules governing their deliberations, but only members in the sections can hold office or vote in the sections. Only members of the St. Louis Medical Society are eligible to membership in the sections but all members of the Society may attend the meetings of the sections.

A Council, consisting of twelve members, has been formed with duties somewhat similar to those of the Judicial Council of the State Medical Association. This Council will be the legislative and business body of the Society and is empowered to elect certain officers. The Council also will elect all members of the Society.

The Nominating Committee, consisting of five members, will prepare a ballot, for the annual election of officers, containing the name of one member for each office to be filled. These ballots will be mailed to the members, who will cast their votes by returning them through the mail to the secretary of the Society after having indicated their choice of candidates. Additional names for offices to be

filled may be added to the ballot provided by the Nominating Committee upon the application of twenty members. Each voter also is permitted to change the ballot and substitute the name of any member for the one printed on the ballot. By this method all members of the Society can vote for the election of officers without the necessity of attending the annual meeting.

The Secretary and the Treasurer are to be salaried officers. Hitherto the Secretary has served without compensation, while the Treasurer has been allowed a percentage of the amount of dues collected. The Chairmen of the various sections are to be the Vice-Presidents of the Society.

The Weekly Bulletin of the Society is to be enlarged and will be, in fact, a medical journal, in which will be published the papers or abstracts of papers that are read before the Society and the various sections, the programs of the meetings of the sections and the general sessions and all matters of interest to the members of the St. Louis Medical Society.

The following sections have been organized up to the present time: Surgical, Internal Medicine, Ophthalmological. The Otolaryngological Section will soon complete its organization.

The Society has under consideration the establishment of a medical defense fund for the protection of its members in civil suits for malpractice. A large majority of the members have expressed themselves in favor of the plan.

MEDICAL ASSOCIATION OF THE SOUTHWEST.

The Medical Association of the Southwest will hold its second annual meeting in Hot Springs, Ark., on October 8, 9, 10. The outlook points to a very successful and profitable meeting. All members attending the meeting should secure a certificate from the agent selling the tickets so that the benefit of a reduced rate may be had.

The meeting will be divided into three sections, medical, surgical and ophthalmological. The program for each section is well filled and indicates the very great interest manifested by the members in this association. Dr. Jabez N. Jackson, of Kansas City, is Chairman of the Surgical section.

The committee of arrangements at Hot Springs announce that special arrangements are being made for the entertainment of the members and their families. Those who have tasted of the pleasures provided by the physicians of Hot Springs in the past know that nothing will be omitted which might contribute to the comfort and pleasure of the members attending this meeting. Dr. Thos. E. Holland is chairman of the committee of arrangements.

COUNCILOR FOR THIRD DISTRICT.

The executive committee of the Judicial Council has appointed Dr. E. W. Whitely, of Albany, councilor for the third district, vice Dr. W. E. McKinley who has resigned to accept the appointment as assistant physician in State Hospital No. 2, at St. Joseph.

A CORRECTION.

In the article by Dr. Outten, printed in our September issue, there occurred an error which we regret very much and which we now wish to correct. On Page 141 Dr. Outten was made to say that Dr. J. D. Griffith, of Kansas City, "performed, in St. Louis, in 1877, the first operation of resection of a rib for the treatment of an empyema—an operation now one of the recognized procedures. In 1883 at the meeting of this Association, which was held in Mexico, Missouri, he reported the first case of gastrostomy as a palliative measure in cases of malignant stenosis of the œsophagus, and in 1889 he popularized the operation of wiring of the patella for fracture produced by indirect violence, and reported a series of cases and the results obtained to the National Association of Railway Surgeons." Dr. F. J. Lutz, of St. Louis, is the one to whom credit is due for these operations.

The Jackson County Medical Society will soon publish its proceedings in journal form. The weekly bulletin will be discontinued in its present form and reissued under the title of the "Jackson County Medical Review." The programs of the meetings will be published in the Review, as well as papers read before the Society and all other matters of interest to the profession of Jackson County. The first number will appear early in October under the direction of Dr. E. L. Stewart, secretary of the Jackson County Medical Society.

The Washington State Medical Society has instructed its judicial committee to take some action to promote more intimate relations between state and county legal and medical societies, as it is desired to bring these two professions closer together for the common good.

The officers for 1907-1908 are: President, Dr. C. N. Suttner, Walla Walla; first vice-president, Dr. W. H. Axtell, Bellingham; secretary, Dr. C. H. Thompson, Seattle; treasurer, Dr. L. L. Love, Tacoma; delegate to the American Medical Association, Dr. J. R. Yocum, Tacoma.

The constitutionality of the Washington state medical practice act has been upheld by the United States Supreme Court in the case of the State of Washington against O. W. Lawson, charged with practicing medicine without a license. As a result of the action of the United States Supreme Court Lawson will have to go to the county

jail and serve the remainder of a ninety day sentence. Lawson was arrested at the instance of the King County Medical Society, the case being the first of its kind to go before the highest tribunal in the state.

The Wisconsin State Medical Association has appointed a committee to prepare a plan for establishing a defense fund for the purpose of protecting its members in suits for malpractice. The committee is to report at the next annual meeting of the association. The report of the committee will be submitted to the Judicial Council of the Association in January, 1908. The probable plan that will be submitted is to create the fund by a per capita tax of \$1.00 upon each member in addition to the annual dues for membership in the Association, which is now \$2.00, thus making the annual dues \$3.00. The proposition is to be submitted to each county society after having been passed upon by the Judicial Council.

The Iowa State Medical Society adopted resolutions at its last annual meeting creating a medical defense committee. A medical defense fund is to be raised by assessing each member \$1.00 per annum, in addition to the regular membership dues, and this fund is to be set aside for use in protecting the members against suits for malpractice. \$300.00 was appropriated from the general fund to be drawn upon until the regular fund may be available.

The Minnesota State Medical Association at its annual meeting in August adopted resolutions which will doubtless result in better organization and more effective work. One committee was appointed to draft a new medical practice act, under competent legal direction, which will be introduced at the next meeting of the legislature. Another committee was instructed to prepare rules for establishing a medical defense fund to be used in the defense of members against whom suits for malpractice may be brought. Contract practice for lodges and fraternal insurance bodies was condemned. The association has a membership of 1159. The officers for 1907-1908 are: Mr. W. H. Magie, of Duluth, President; A. B. Stewart, Owatonna, first vice-president; Thos. McDavitt, St. Paul, secretary; R. I. Hill, Minneapolis, treasurer.

A woman physician has been appointed health officer of the city of Portland, Oregon. She is Dr. Esther C. Pohl, a graduate of the medical department of the University of Oregon. For two years she has been a member of the city health board. She is said to be well qualified to fill the duties of the office, which carries a salary of \$3,000.

The American Association of Railway Surgeons meets in Chicago on October 16, 17 and 18.

CORRESPONDENCE.

To the Editor of the Journal.

Dear sir: For several years the question has been discussed whether the meeting of the State Association should be held in the fall instead of in the spring. Th principal reason for urging the change has been the short interval which occurs between the meeting of the State Association and that of the American Medical Association. It is urged that attendance upon the latter is impractical for many who have attended the State Association. This year the officers of the American Medical Association have advised that we change the time of meeting of our State Association. The Executive Committee of the Judicial Council, through its chairman, conferred with the President of the Association who concurred in the opinion that a change in the time of meeting should not be made without the expressed assent of the county societies represented in the House of Delegates, even though it were practical to hold a successful meeting of the State Association this fall; and the official reply to the request of the American Medical Association was in conformity with this view.

It is, however, suggested that since this matter is being agitated, the county societies consider it during the coming winter and instruct their delegates so that they may voice the sentiments of the county societies when the question comes up for discussion at the May meeting of the Association in Springfield next year.

Yours truly,

F. J. LUTZ,
Chairman Judicial Council.

St. Louis, September 26th.

OBITUARY

D. R. CORBIN, M. D.

David Riley Corbin was born in 1875 in Stoddard County, Missouri. He was educated in the common schools and at the State Normal School, at Cape Girardeau. He received his medical degree from the medical department of Vanderbilt University in 1899, and was licensed to practice medicine in this state in the same year. He located at Bernie, Missouri, remaining there for about two years when he removed to Bloomfield, and remained in the practice of his profession at that place until his death on August 10, 1907.

Dr. Corbin was a capable physician, enjoying the confidence of his patrons and the esteem of his professional brethren. He was deeply interested in the success of professional organization. He was the prime mover in the formation of our county society and was made its first secretary and the next year he was elected president. He filled both these offices with ability and satisfaction. He was regular in his attendance at the meetings of the Society, being absent only when prevented by sickness in his family. He was always ready to take part in any movement, or to do anything for the good of the profession. He was the delegate from our Society to the last meeting of the State Association and on the division of the district was made councilor for this district. His untimely demise is a great loss to the profession both of the county and of the state.

R. P. COZZENS, M. D.

Dr. R. P. Cozzens died at his home in Fredericktown, Mo., on July 31, 1907. He was 47 years of age. He graduated from the Barnes Medical College in 1902. He was a member of the Madison County Medical Society and of the State Medical Association.

COUNTY SOCIETY NOTES

ADAIR COUNTY MEDICAL SOCIETY.

The Adair County Medical Society held its regular meeting in Kirksville, September 7th.

Dr. Chas. Wilson, of Green City, read a paper on "A Study of the Infection of Tuberculosis in One House in a Rural District." By microscopical examination he proved three cases to have developed from the original source. The paper advocated minute doses of tuberculin in the early stage.

Osteopathic influence is strong in our county and our attendance has never been large.—J. SCHOOLING GASHWILER, M. D., Reporter.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

Cape Girardeau County Medical Society held its regular monthly meeting at Jackson, September 6th. Eight members were present and Dr. Horn a visitor.

A committee was appointed to draw up resolutions pertaining to the old line life Insurance Companies asking them to come to old rate of \$5.00.

Dr. H. S. Winters was given a transfer to the Scott County Medical Society. He goes to Oran.

The scientific program for the evening consisted of a symposium on "Rheumatism." The following papers were read:

Etiology, Dr. B. W. Hays; Pathology and Symptomatology, Dr. W. K. Statler; Treatment of Acute Form, Dr. Vinyard; Treat of Chronic Form, Dr. Henderson.

After listening to these interesting and instructive papers the Society adjourned to meet at Cape Girardeau on October 4th.—E. H. G. WILSON, M. D., Secretary.

CASS COUNTY MEDICAL SOCIETY.

The Cass County Medical Society held its fifth regular meeting for the present year in Harrisonville, Monday, September 12th.

All members on the program responded excepting one.

Dr. R. P. Yeagle read a paper on "Liberal Diet in Typhoid," in which he championed the growing sentiment for judicious, careful, sustaining nourishment.

Dr. R. H. Burney's paper on "Tuberculosis" showed that the Doctor has a painstaking aptitude for statistics which after all is perhaps the best method to use in getting this great subject before the laity and our lawmakers.

Dr. G. W. Farrow read his second paper on "Electric Therapeutics." This, as well as the previous paper, was a masterly presentation of the subject. The introduction of drugs into the system by galvanism was the main feature and started a spirited discussion on the whole subject of electric therapeutics and its utility.

As an exhibition of that charity which should govern the action of men, the Society authorized the secretary to express the Society's encouraging sympathy to a seriously ill fellow practitioner, though not a member of our organization.

Members taking part in discussions: G. M. Anderson, H. A. Brierly, R. H. Burney, W. F. Chaffin, H. S. Crawford, A. R. Elder, F. B. Ellis, G. W. Farrow, H. Jerard, M. P. Overholser, W. C. Palmer, H. S. Prentiss, J. S. Triplett and R. P. Yeagle; H. A. Brierly, President, M. P. Overholser, Councilor.

The Society adjourned to meet November 7, 1907.—W. F. CHAFFIN, M. D., Secretary.

COOPER COUNTY MEDICAL SOCIETY.

The Cooper County Medical Society met in Boonville, on Tuesday, September 3rd.

Members present:—Drs. P. L. Hurt, F. R. Smiley, R. L. Evans, J. S. Parrish, and W. H. Reynolds.

A letter from the Assistant Secretary of the American Medical Association in regard to "Contract Practice" was read before the Society. This letter was then discussed by the members present and upon a vote the usual order of business was suspended and the following motion, made by Dr. P. L. Hurt, was presented:

Resolved, That any member of the Cooper County Medical Society who persists in the practice for any social or fraternal organization after thirty days from date, shall be disqualified for membership in the Cooper County Medical Society. This motion was seconded by Dr. W. H. Reynolds after which the resolution was adopted by the unanimous vote.

Clinical cases were presented by Drs. Hurt, Reynolds, Smiley and Evans and discussions followed.

The society adjourned to meet October 1st, 1907.—JNO. R. LIONBERGER, M. D., Secretary.

GREENE COUNTY MEDICAL SOCIETY.

After a two months vacation the Greene County Medical Society met in regular session at Springfield, September 13th.

The Library Committee reported having bought \$45.00 worth of new books. The Committee on "Open Session Meeting" reported that arrangements were being made for an early meeting. The Committee on Public Health and Legislation reported that our prosecut-

ing attorney had attended to the cases of illegal practitioners that had been referred to him. The coming meeting of the State Association here next spring was discussed. On request the name of Dr. H. Janss was dropped from our list of members. The registration of births and deaths by physicians was discussed and the majority were in favor of this registration.

Dr. Pipkin read an interesting paper entitled "The Care of the Infant." He said in part: The development of the child is influenced by inheritance, surroundings and food. The physician can partly control the surroundings and almost entirely the food. The care of the umbilicus is very important. It should be ligated and cut off about two centimeters long. The strictest cleanliness must be enforced and the dead tissue disposed of as soon as possible. After the first bath, bathing should be interrupted until the cord has fallen off; moisture favors the growth of germs at the navel; the cord should be dressed with dry gauze or cotton. The care of the eyes is important and a 2 per cent. solution of nitrate of silver or boracic acid solution may be used. A healthy child sleeps almost continuously for the first two or three days and later it sleeps 20 to 22 hours out of the 24, waking only for hunger, discomfort or pain. Training in proper habits of sleep should begin at birth.

This paper was discussed by Drs. Fulton, Ralston, Woody, Barnes, Camp, and Coffelt.

Dr. Ralston reported an interesting case of abscess of the lung with a peculiar discharge.—J. L. ORMSBEE, M. D., Sec'y.

HOWARD COUNTY MEDICAL SOCIETY.

Howard County Medical Society met at Armstrong on September 6th. Present: Drs. N. E. Smith, Lee, Wright, Fleet, Bonham, Preston, White, Thompson, Hume, Richards and Watts. Visitors: Drs. J. S. Preston, and M. S. White, of Roanoke, Mo.

The scientific work of the meeting consisted in the presentation of a number of clinical cases.

Dr. Fleet presented a case of eclampsia with convulsions, in which he used the HMC tablet with fine effect, the convulsions being relieved with no bad after effects from tablet. He regards the HMC tablet as useful in all cases of severe pain.

Dr. Bonham reported a case of tuberculous ulcer of the tibia and fibula, of twelve years standing. Amputation would not be justifiable at present, and operation was advised after treatment with nutritives and creosote. Dr. White advised creosote increased to thirty or forty drops if necessary.

Dr. White presented a case of petit mal in an old man who had used the bromides for years with but little relief. With a change of the treatment to nutritives and strychnine with bromides the paroxysms were reduced to one in three weeks.

Dr. Wright presented a very interesting case of chorea with severe delirium in a girl aged fourteen years. Under soporifics and tonics she is improving.

Dr. White of Macon County Society was given a transfer card to Howard County Medical Society as he has now located at Roanoke.

As only a few of the members appointed to organize a Society for the Prevention of Tuberculosis were present, the committee was given until the October meeting to report its organization and election of officers. The committee consists of the following members: Drs. Newton E. Smith, Fayette; C. W. Watts, Fayette; Paul C. Smith, Fayette; C. F. Drake, Boonsboro; J. R. Champion, Hillsdale; W. R. Hawkins, Glasgow; J. T. Wood, Harrisburg; J. B. Fleet, New Franklin; J. Y. Hume, Armstrong and M. S. White, Roanoke.

The Society extended a vote of thanks to Drs. Hume and Thompson for the splendid entertainment provided for us at the Morris house and to the citizens of Armstrong for their liberal provisions.—C. W. WATTS, M. D., Reporter.

THE JASPER COUNTY MEDICAL SOCIETY.

The Jasper County Medical Society met in regular session at Joplin, September 17th. The following members were present: Drs. Shelton, Matthews, Bonnett, Lanyon, Grantham, Webb, Donohoo, Anderson, Miller, S. H., Willim and James; visitors: Drs. Baker and McAlester of Joplin.

Dr. Donohoo reported an interesting case of myelogenous leukemia. By request the doctor will make a full report of the case at the next meeting.

Dr. Grantham reported the case of a young man who came to him with diagnosis of appendicitis. On operating he found the trouble to be of gall bladder origin and adhesions due to a previous attack of peritonitis. Dr. Grantham removed a stone that completely filled the gall bladder.

Dr. Neff stated that men of national reputation sometimes mistook gall bladder disease for appendix disease, only finding out the mistake after making an incision.

Dr. Lanyon reported the case of a man who had marked symptoms of appendicitis, suffering severe pain, vomiting, etc. After consultation operation was decided upon but the patient refused to submit to operation. Gave anodyne treatment to relieve pain and in a few days all symptoms had disappeared.

Dr. Grantham exhibited a recent specimen of section of the lower end of the ascending colon and cecum without the slightest indication of there being any vermiform appendage. The specimen was a rare and valuable one.

The taking up of post graduate work was freely discussed and

the following committee was appointed to formulate plans and suggest an outline best suited to the Society: Drs. Lanyon, Bonnett and S. H. Miller.

Action on the charges of unprofessional conduct brought against Dr. Z. T. Blackwell was postponed till the next regular meeting.—R. M. JAMES, M. D., Secretary.

JACKSON COUNTY MEDICAL SOCIETY.

The first regular meeting of the Jackson County Medical Society, following summer vacation, was held at Employer's Association Hall, Tuesday evening, September 17th, there being present in all thirty-four.

Dr. C. C. Conover presented a case for examination which he had diagnosed as aneurysm, probably of the aorta. The patient gave a history of syphilis contracted years ago, and presented a pulsating enlargement over the precordial space. He complained of pain in the second interspace, which grew much worse about three months ago; voice bore a brazen metallic tone; paralysis of right laryngeal muscles. The chair appointed as a committee to examine the patient and report, Drs. Hyde, Thompson, Swaney, McArthur and F. M. Lowe, all of whom, after examination, confirmed the doctor's diagnosis. X-ray picture showed shadow over the aneurysm.

Next on the program was a paper by Dr. W. A. Shelton, entitled "Some Injuries of Joints," giving first a description of the different dislocations of elbow and shoulder, illustrated by the use of x-ray plates in a most beautiful manner. He also presented these different patients from whom the pictures were made. (For full text of this paper see page 212). Dr. A. W. McArthur opened the discussion, and reported a case of fracture of the anatomical neck of the humerus, upon which he and Dr. Reynolds had operated less than one week ago. The head of the bone was located posterior to the axilla. The operation consisted of dividing the pectoral muscles after the Jackson method of breast amputation, separating the softer tissues gently and retracting the head. Others discussing the paper were Drs. Pearse, Hill, McCrear and Luscher. Dr. Shelton closed the discussion. The x-ray plates, which were remarkably plain, were prepared and demonstrated by Dr. O. H. McCandless.

In executive session the hall committee was authorized to spend the sum of \$500.00 per year for renting a new hall, the regular meeting place of the society having been burned in the Pepper Building fire.

To members of the State Society an invitation is extended to meet with us at any time you are in the city. Our regular meetings are held every Tuesday evening, the last meeting of the month being devoted to clinics, demonstrations of pathological specimens and instruments. We always have a place on our program for visiting members.—E. L. STEWART, M. D., Secretary.

LAWRENCE-STONE COUNTY MEDICAL SOCIETY.

The Lawrence-Stone County Medical Society met at Aurora, September 3d. The following members were present: J. A. Harris, J. P. Andrews, C. A. Moore, A. H. Madry, F. S. Stevenson, J. B. Fleming, I. A. Cottingham, W. W. Rodman, J. A. Melton, J. H. Craven, J. P. Baird, W. M. Holmes, W. S. Loveland, T. D. Miller, R. W. Smart, E. E. Wade, N. F. Terry, with Drs. G. B. Darrel of Republic, Ben. H. Smith, of Springfield, and Monday, of Aurora, visitors.

Dr. Harris moved that a reporter for the Society be elected and Dr. Madry was afterward elected for the position.

The scientific part of the program was opened by Dr. T. D. Miller, who reported a case, "Post Operation on Fractured Tibia." A child four years old had fallen from a high chair when two years old and had fractured the tibia of the left leg and bent the fibula, producing great deformity; had been treated by the former surgeon as a dislocation. Skiagraphs taken before and after operation were presented to the Society. The first showed the fractured end of the tibia united nearly at right angles to axis of the upper portion. The operation consisted of opening down to the bone over the angle made by the two fragments and refracturing the tibia, after which the parts were brought into line and fastened in position with plaster paris dressing. The result was a straight leg, union good and one inch shortening. The second skiagraph showed bone projecting at what was the outer angle before the operation. This would necessitate a second operation for its removal.

Dr. Wade thought Dr. Miller should be complimented for the successful outcome of the operation and the good result obtained.

Dr. Smart said that undesirable cases were often forced upon the physician but fortunately there was nearly always a way out if the physician would apply himself to the task imposed. He had had little experience with fractures of the tibia but broken femurs had given him annoyance.

Dr. Madry said the skiagraph showed an oblique fracture of the tibia, and the fibula bent into a rainbow shape. He would have probably used a chisel, or if a saw he would have followed the line of fracture.

Dr. Harris said the practicing physician felt the needed benefit the x ray gives in diagnosing injuries and indicating the proper adjustment of the injured parts. He thought the operation performed by Dr. Miller a success.

Dr. Miller stated in closing that he had expected the gap made by the saw and fracture to be filled in with exudate.

Dr. G. B. Darrel presented the next subject, "Hyoscine Anesthesia," making report of ten cases in which he had used the W. A. combination. Dr. Darrell said at the outset that this remedy, like all other powerful ones, could be and had been abused. In cases of labor,

if not used right and at the proper time, we were liable to have bad results. The following cases were reported:

Case 1. A labor case that received a dose when the cervix had been partially dilated. The anesthetic acted well leaving no unpleasant results to mother or child.

Case 2. Submucous fibroid of the uterus; received two doses that produced complete anesthesia while cervix was being dilated and the tumor being removed. No bad after effects.

Case 3. Twins; labor well along when the doctor arrived. Gave one dose when the cervix was sufficiently dilated and one hour later gave another dose. The only bad after effect noticed was that one of the twins remained quite sleepy some hours.

Case 4. A labor case; received two injections that acted well, stopping some abnormal contractions.

Case 5. Labor case; received an early injection that seemed to stop all pains or contractions, and the doctor went home to be called again. Case ended well.

Case 6. Labor case; mother did well but baby was very sleepy and required half hour to resuscitate.

Case 7. Labor. Another doctor had spent a day and night with the patient and had given the anesthetic, which seemed to prolong the labor. Forceps were applied and delivery effected without any untoward effects on mother or child.

Case 8. Labor, 48 hours duration; membranes rupturing; twenty-four hours after commencement both child and mother died.

Case 9. Retroverted uterus and painful menstruation; gave two doses one hour apart and then a little chloroform; replacement easily and painlessly effected.

Case 10. Labor easy and almost painless and no bad effects to mother and child.

Dr. Darrell advised withholding the anesthetic until the second stage in labor cases, when the cervix is being fairly well dilated, that the child may not be too long exposed to the action of the anesthetic.

Dr. Rodman thought there was an effect in the combination not obtained in the substances given singly. He believed one of the cases was not ready and should have had a dose of morphine. He objected to so prolonged an effect as hyosciamine produced and preferred chloroform.

Dr. Andrews considered the anesthetic too new, as used in the combination, to allow the profession time for the formation of definite opinions as to its value. He had given the hydrobromate of hyoscyamus in a case of puerperal sepsis but the patient had gotten spts. frumenti also. He thought such powerful therapeutic agents dangerous and preferred chloroform in labor, that being safer for the child.

Dr. Smart called attention to profuse post-partum hemorrhage

as probably assignable to the use of hyoscyamine in labor cases. He had found difficulty in obtaining contractions. He did not fear the anesthetic effect but believed chloroform should always be given.

Dr. Wade had used the agent in a case of breach presentation and succeeded in turning, but child died shortly after delivery.

Dr. Fleming had not used this anesthetic and said he seldom used an anesthetic in labor cases. He had recently been called to see a three weeks' old baby whose mother had received the anesthetic at delivery. He found the inferior maxilla dislocated and the skull fractured. The child died a day or two later of traumatic meningitis. He considered Dr. Smart's cases of hemorrhage due to the fact the anesthetic stopped all after pains.

Dr. Terry thought hyoscyamine not identical with scopolamine but the difference largely one of purity; the latter he considered a dangerous drug. He considered the remedy under discussion one of value but thought commercial interests had to be taken into account when considering hyoscyamine anesthesia reports. He had observed in surgical cases that when given previous to chloroform it allayed the patient's fears of chloroform and shortened the time, eased the effort of anesthetizing and obviated the tendency to vomiting after operation. Nobody had used this agent 3,000 times, yet all had something to say of danger. He was afraid of it for complete anesthesia and believed we did not yet understand all the dangers that might come from its use.

Dr. Smith said his experience had been limited to surgical and nervous disorders; that the use of hyoscyamine had been abandoned in treating morphine and cocaine habits. He regarded any therapeutic agent dangerous that reduced respiration to 3 or 4 per minute.

Dr. Miller believed the analgesic effects were better than $\frac{3}{4}$ grain morphia produced.

Dr. Andrews advised caution in cases where albuminuria existed but thought it might fit in the niche where chloroform and ether were contraindicated, as in lagrippe.

Dr. Harris considered the combination as being in the experimental stage and did not believe the virtues new-found. He recommended a middle ground.

Dr. Darrell in closing warned against giving the agent too soon. Had not in surgical cases noticed slow expiration.

Dr. Smart reported a case of premature labor due to diseased placenta. There were hemorrhages and strong contractions but dilation of cervix did not proceed. After repeated attempts to dilate with finger and dilator, patient was anesthetized and a partial dilatation was made through which the dead fetus was taken out in pieces. Patient was reported dead at close of operation but soon revived and made uneventful recovery.

The report was discussed by Drs. Craven, Andrews, Stevenson, Darrell, Madry, Ferry and Rodman.

Drs. Darrell and Smith were made honorary members.

On motion the society adjourned to meet at Crane, Stone County, December 3d, at which time the election of officers for the year 1908 will take place.—A. H. MADRY, M. D., Reporter.

MORGAN COUNTY MEDICAL SOCIETY.

The Morgan County Medical Society met in regular monthly session at the residence of Dr. P. G. Woods, Versailles, on August 14th. Present, Dr. Chas. Fry, of Syracuse, Mo., Drs. Gunn, Lutman, Short, Well and Woods of Versailles.

The committee on arrangements for an open session of the Society reported that the date had been set for Wednesday, September 11th. The meeting will be held in the Circuit Court Room, Court House, Versailles.

The following resolution was adopted by the Society:

"Whereas it is incompatible with honorable standing in the profession, and in direct violation of the National Code of Ethics, which has been adopted as the Code of this Society, to publish cases or operations in the daily prints, or to suffer such publications to be made in connection with our names as physicians and surgeons, be it

Resolved, by the members of the Morgan County Medical Society that we denounce the too common practice of having our names associated with the reports of cases or news items pertaining to professional services and that we will use our best efforts to prevent the same."

The remarks by Dr. Chas. Fry, of Syracuse, on organization were endorsed by all the members.

The next meeting will be held at Versailles, Wednesday, September 11th.—H. N. LUTMAN, M. D., Secretary.

SHELBY COUNTY MEDICAL SOCIETY.

The Shelby County Medical Society met in regular session at Sheibina on September 24th.

Dr. Carson reported an epidemic of sore throat in his locality which he believed to be follicular tonsillitis. Several cases of diphtheria were reported in different parts of the county. A good discussion by Pollard, Vaughan, and Chapman on follicular tonsillitis and diphtheria followed. All agreed that the safest plan was to administer antitoxin in all questionable cases.

Dr. Carson read an excellent paper on "Follicular Tonsillitis followed by Locomotor Ataxia." He used a preparation of animal lymph with remarkable results. He had used it in a case of long standing, obscure stomach trouble, but which he believed to be neurotic, with good results.

Dr. Wood believed the lymph treatment had no scientific foundation and if it did good it was because it contained well known drugs.

Dr. Smith had used it in a patient with lateral sclerosis with no benefit.

This was an unusually interesting and profitable meeting which all enjoyed.

Adjourned to meet in December.—A. M. Wood, M. D., Reporter.

STODDARD COUNTY MEDICAL SOCIETY.

The Stoddard County Medical Society met in regular bi-monthly session in Bloomfield, on September 4th.

The visiting members were entertained at dinner by the local physicians, and the society was called to order at the Odd Fellow's Hall, at 1:30 p. m. by the Vice-President, Dr. Ed. Moore.

Members present: Drs. Ashley, Moore, Turnbaugh, Evans and Poe of Bloomfield; Drs. Vernon and Slayden of Dexter; Kerr of Dudley; and Farber of Leora. Also Drs. Sloan, D. D. S., and E. G. Kesling, D. D. S., of Bloomfield, who were invited to participate in the discussion.

Dr. Ashley reported the death of Dr. D. R. Corbin on August 10th and suitable resolutions were adopted.

Dr. Corbin was one of the most prominent members of the profession in the county. He enjoyed the confidence of the profession and the entire community.

It was largely through his efforts that the society was organized and has been kept in good working shape. He has been president of the society, was the delegate to the last meeting of the State Society and was appointed Councilor of the 23d District.

The Society recommended and endorsed Dr. T. C. Allen of Bernice to the Judicial Council for the position made vacant by the death of Dr. Corbin.

The Board of Censors reported favorable on the applications of Dr. A. D. Farber of Leora and Jno. D. Poe, of Bloomfield and they were elected members of the Society.

Dr. Ashley presented an interesting case of lack of motion of lower jaw, which was examined and discussed at length.

Dr. Slayden opened the discussion on "Early Fibroids of the Uterus," and E. G. Kesling, D. D. S., presented a paper on "Relation of Physicians and Dentists With Regard to Deposits on the Teeth."

Both subjects were discussed by all present, and every one felt that it had been a very profitable meeting.

The next meeting will be held at Dexter, on the first Wednesday in November. The entire profession of the county are earnestly requested to attend.—GEO. W. VERNON, M. D., Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

The St. Louis County Medical Society met at Kirkwood, August 14th.

Dr. R. W. Mills presented a specimen of ileum showing a large perforation occurring in typhoid fever. He also showed microscopic specimens of blood from a baby of one year with leukaemia.

Dr. A. E. Taussig of St. Louis read a very practical paper on "The Use and Abuse of the Microscope in General Practice."

Dr. Le Roy Grimes of Maplewood was elected to membership.

MEETING OF SEPTEMBER 11TH.

The meeting of September 11th, was held at Kirkwood. After disposal of routine business, Dr. C. S. Armstrong read a paper on "Typhoid Fever" reporting some interesting and unusual clinical manifestations. Both meetings were well attended.—R. D. MOORE, M. D., Reporter.

BOOK REVIEWS

A MANUAL OF OBSTETRICS. By A. F. A. King, M. D., Professor of Obstetrics and Diseases of Women in the Medical Department of the George Washington University, Washington, D. C., and in the Medical Department of the University of Vermont, etc. Tenth edition, enlarged and thoroughly revised. 12mo., 688 pages, with 30 illustrations and three colored plates. Cloth, \$2.75, net. Lea Brothers & Co., Philadelphia and New York, 1907.

A review of King's Manual of Obstetrics would indeed be superfluous; any work passing into the tenth edition has long ago had the stamp of approval set upon it. This little book has been a standard with students and practitioners for a long time, and the last edition has been brought up to date and well illustrated and will no doubt remain as popular as it has been for many years.

THE PRACTITIONER'S MEDICAL DICTIONARY. An Illustrated Dictionary of Medicine and Allied Subjects, Including all the Words and Phrases Generally used in Medicine, with Their Proper Pronunciation, Derivation, and Definition. By George M. Gould, A. M., M. D. With 388 Illustrations. Octavo xvi + 1043 pages. Flexible Leather, Gilt Edges, Rounded Corners, \$5.00; with Thumb Index, \$6.00, net. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia.

There are many good medical dictionaries on the market. Those edited by Dr. Gould have always been looked upon as standard by the profession. This book is entirely new, and contains about all the medical words and terms that will be found in the standard medical text-books and journals. The illustrations, however, are poor and not in keeping with the excellence of the rest of the book.

THE PRINCIPLES AND PRACTICE OF MODERN SURGERY. By Roswell Park, M. D., Professor of Surgery in the University of Buffalo, Buffalo, N. Y. In one very handsome imperial octavo volume of 1072 pages, with 722 engravings and 60 full-page plates in colors and monochrome. Cloth, \$7.00, net; leather, \$8.00, net. Lea Brothers & Co., Philadelphia and New York, 1907.

This new individual book is the successor of the Surgery by American Authors edited by Professor Park, which ran through three editions. His collaborators therein have most willingly placed their work and accompanying illustrations at his service. As Professor Park is equally at home in the surgical literature in English, German and French, the three languages to which everything in the civilized world must come for dissemination, his Modern Surgery may be trusted as an authoritative exposition of the world's most advanced views and practice at the present time.

A COMPEND OF MATERIA MEDICA AND THERAPEUTICS. By Dr. S. O. L. Potter. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia.

Dr. Potter needs no introduction to the medical student. His writings along this line have been used for years in most medical schools and schools of pharmacy. As a general proposition the use of quiz-compendis is not encouraged by teachers, but the student persists in using them, probably to his profit. Dr. Potter's little book has run into the seventh edition, the last edition being a very complete and useful little volume.

INTERNATIONAL CLINICS. Vol. II. III. IV. Sixteenth Series. Edited by A. O. J. Kelly, M. D., With the Collaboration of a Large International Staff. J. B. Lippincott Co., Philadelphia, Pa.

The clinical lectures or papers published in the volumes under review are all written by eminent men and are well calculated to increase our knowledge. As a rule the articles are well written. In volumes II and III there are remarkably well illustrated papers on the treatment of fracture by Dr. Geo. G. Ross.

Rovighi, of Bologna (Vol. II) reports some experimental researches on surgical interventions in nephritis and confirms the views expressed by others that a true and useful anastomosis forms between the peri-renal and the intra-renal decapsulation.

Lloyd (Vol. II) has a good and racy paper on Neuroses of the Stomach which is calculated to do much good. The perennial discussion of the repair of the ruptured female perineum is attended to by Dorland in a well illustrated paper. Rodman's careful work on Mammary Cancer is excellent not only because of the beautiful illustrations but because of its intrinsic merit.

Bradford's article (Vol. III), The Hyperemia Treatment of Swollen Joints, is an admirable account of the methods of Bier and Klapp. In the West too little attention has been paid to these methods.

An article on the Radical Cure of Hernia, by A. N. McGregor is like its author, sensible. Cumston discusses the clinical significance of the peritoneal adhesions.

In volume IV, there is an excellent series of papers on Genito-Urinary subjects. Arthur R. Elliot speaks of obscure Renal Hematuria, and David Wallace lectures on Vesical Tumors.

Leon Bernard (Paris) gives a very valuable account of recent work on the diseases of the adrenals. This article is of unusual value. Lilienthal gives much practical advice as to the non-operative treatment of renal and ureteral calculus colic.

The three volumes contain other lectures on medical and obstetrical subjects all from experienced workers in the field.

J. F. B.

TEXT-BOOK OF PSYCHIATRY. A Psychological Study of Insanity for Practitioners and Students. By Dr. E. Mendel, A. O. Professor in the University of Berlin. Authorized Translation. Edited and enlarged by William C. Krauss, M. D., Buffalo, N. Y., President Board of Managers Buffalo State Hospital for Insane; Medical Superintendent Providence Retreat for Insane; Neurologist to Buffalo General, Erie County, German, Emergency Hospitals, etc.; Member of the American Neurological Association. 311 Pages. Crown Octavo. Extra Cloth. \$2.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

The translator has furnished the student of this very difficult branch of medicine with a most excellently arranged text-book, the manner of presenting the subject being one of the prominent features of the book. The idea of dividing the text into two grand divisions, general psychiatry and special psychiatry, is undoubtedly a good one, and will do away with a great deal of the confusion which always attends the efforts of the student when he attempts to make any classification of mental diseases. There is a great deal more in the book than one would suppose upon the first examination, for we find nearly every morbid condition of the mind very well covered. This, we believe, is the first edition of Professor Mendel's work to be presented to the American profession, and it will be well received by them.

EYE, EAR, NOSE AND THROAT. The Practical Medicine Series. 1907. Edited by Gustavus P. Head, M. D. Assisted by Casey A. Wood, M. D., and Albert H. Andrews, M. D. 340 Pages. Published by the Year Book Company, 40 Dearborn St., Chicago.

The volume of the Practical Medicine Series devoted to the Eye, Ear, Nose and Throat is very meritorious. It is designed for the general practitioner but is extremely useful to the specialist as a review and digest of all the important literature of his subject for the preceding year.

Of the 21 chapters devoted to the Eye, the one pertaining to new instruments and appliances seems very attractive. The illustrations are chosen with rare good judgment and enable the reader to readily grasp the inventor's idea. The chapter upon comparative ophthalmology deserves warm commendation. It is illustrated by colored plates, beautiful in execution and in effect. To a person interested in the purely scientific aspect of the question, who has not the original monographs, this chapter alone is sufficient *raison d'être* for the book.

The section on the Ear is subdivided anatomically, the more interesting phases of the external, middle and internal ear being considered consecutively. On the whole this section of the book is valuable but its illustrations are few and uninteresting.

In the section upon the Nose and Throat the leading subjects are paraffin prosthesis, submucous resection of the septum and the accessory sinuses. It is evident that the last word has not yet been said on any of these topics.

J. W. S.

THE PRACTICE OF OBSTETRICS. By American Authors. Edited by Charles Jewett, M. D., Professor of Obstetrics in the Long Island College Hospital, Brooklyn, N. Y. In one handsome octavo volume of 786 pages, with 445 engravings in black and colors and 36 full-page colored plates. Cloth, \$5.00 net; leather, \$6.00 net; half morocco, \$6.50 net. Lea Brothers & Co., New York and Philadelphia.

It is quite a rare occurrence in medical literature to find a work of composite authorship appearing in successive new editions. Generally the demand ceases with the first issue. Thus it must be inferred from the fact that Jewett's Practice of Obstetrics is now appearing in its third edition, that it is a well-edited work of proved quality. It is a work equally suited to the needs of the obstetrician and the student.

A TEXT-BOOK OF PHYSIOLOGICAL CHEMISTRY. For Students of Medicine and Physicians. By Charles E. Simon, M. D., Professor of Clinical Pathology in the Baltimore Medical College. New (3d) edition. In one octavo volume of 490 pages. Cloth, \$3.25, net. Lea Brothers & Co., Philadelphia and New York, 1907.

Simon, in this excellent work, which now appears in its third edition, considers the chemistry of the three classes of foodstuffs, their digestion, assimilation, metabolism and excretion, and of the products of the various glands and organs. His presentation adapts the work for use as a text book, a laboratory manual, or for the office needs of the physician in active practice. The book is carefully revised to date.

A TREATISE ON THE PRACTICE OF MEDICINE. For Practitioners and Students. By Arthur R. Edwards, M. D., Professor of the Principles and Practice of Medicine and Clinical Medicine in the Northwestern University Medical School, Chicago. Octavo, 1328 pages, with 101 engravings and 19 plates. Cloth, \$5.50, net; leather, \$6.50, net. Lea Brothers & Co., Philadelphia and New York, 1907.

This new addition to the large number of text books on the practice of medicine, is a well rounded work from the pen of an experienced and successful teacher. It covers theory as leading up to and explaining facts, and at the same time abounds in sound practical advice. It will prove a useful work to both the practitioner and the student.

A MATERIA MEDICA FOR NURSES. By Emily A. M. Stoney. Published by W. B. Saunders Co., Philadelphia and London.

This book has passed through three editions in the last seven years, and if the present high standard of the work is maintained it will probably remain a very popular book for some time to come. The book is just what its title says it is. There is a good chapter on the treatment of poisons; apomorphine is advised to be given as an emetic in opium poisoning; we doubt if this is the proper treatment. The glossary in the back of the book is useful.

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JOURNAL MISSOURI STATE MEDICAL ASSOCIATION

Volume IV

NOVEMBER, 1907

Number 5

ORIGINAL ARTICLES

REPORT OF A CASE OF ANEURISM OF THE SUBCLAVIAN; LIGATURE IN THE FIRST PORTION; RECOVERY.*

BY HERMAN E. PEARSE, M. D., KANSAS CITY, MO.

The cure of aneurism is a matter for operative procedure only; the so-called "medical" treatment by aconite, iodide of potassium, and other cardiac depressants, gives a record of scant success. The only generally successful method has been the ligation of the vessel with or without excision of the sac and in later years the intrasacular suture after the method of Matas of New Orleans. Where the aneurism can be isolated and all branching vessels easily secured and ligated and the entire sac reached and removed, the double ligation, proximal and distal, with excision of the sac, offers the greatest certainty of cure. The establishment of collateral circulation must be considered and the question of the life of the part supplied by the vessel must be weighed and risked.

The case presented here was one in which these chances and all others had to be taken, on account of the desperate nature of the growth and the certainty of disaster if it were left to take its course. The patient, Mr. G. a Swede, age 41, is a well built muscular man in robust health. He consulted me early in May, 1906. He is a locomotive engineer by occupation, running on the Frisco railroad. He was never ailing except that about November, 1905, he noticed a "big pulse," as he described it, on the right side of the neck at the level of the collar bone.

About February he began to suffer pain in the arm and to feel tingling sensations in the ring finger and little finger of the right hand. He was treated for rheumatism at first until the doctor found out about the "big pulse in the neck," when a diagnosis of aneurism of the subclavian artery was made. He went to his company surgeon, but received no encouragement of possible cure. He then went to the company surgeon at Thayer, Mo., Dr. Edward's, who called Dr. Harvey Maloney in consultation. Dr. Maloney advised him to come to St. Luke's Hospital and place himself under my care. The doctor

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

wrote: "I have a patient here who has an aneurism of the right subclavian artery external to where the cerebral artery is given off. He is a Swede, about 41, single, good habits, physical condition good, except some trouble with right arm. Now from a medical standpoint there is nothing to offer this man. What can you do surgically? He is fairly well fixed and is anxious to have something done if there is any chance. He will come up to Kansas City any time to see you. Let me know just what you think about it." I reproduce the letter as an example of clear-cut definite English and frank, terse, statement of fact.

I found upon examination a pulsating tumor in neck on the right side. It lay behind and also on each side of sterno-cleido-mastoid muscle, but mostly external to it. It rose above the clavicle for about two inches. It gave only a faint bruit over its body, but over the base of the heart and the right subclavian region it gave a pronounced one. Radial pulse of right side pronounced; left side absent on account of old injury to the left arm. I advised him that the case was possible of operation, but one that carried about it a 90 per cent. death rate. I gave him the facts and figures as follows:

The American Text Book of Surgery, 1892, page 243, says: "If the aneurism is small and limited to the third portion, digital pressure upon the proximal side of the subclavian, although difficult for anatomical reasons, may be attempted in conjunction with constitutional treatment. Pressure directly upon the sac has been successful in a few cases. If compression fails, the artery should be ligated upon the distal side, since proximal ligation has proven ineffectual. It may be necessary, where other means have failed, to ligate the artery on the proximal side as a preparatory step, and then immediately to amputate the arm at the shoulder joint."

Deaver reports sixteen cases of ligation at the first portion, with thirteen deaths (1889).

Bryant reports twenty-one cases with nineteen deaths (1899).

Dennis quotes Ashurst in the Int. Encyclo. Surg., vol. III, reporting fifteen cases with thirteen deaths (1902).

Twentieth Century Practice, page 589, quoting from Ballance and Edwards "Treatise on Ligation of Great Arteries with Observations on the Nature and Progress of Aneurism," (McMillan, London, 1891), reports fourteen cases all of which died—mortality of 100 per cent.

I am unable to present figures and statistics of a later date than the above, which shows 66 cases with 59 deaths—a death rate of 90 per cent. I submitted these facts and figures to my patient and he requested me at once to operate. Before doing so, I asked him to consult Dr. George M. Gray, the surgeon of St. Margaret's Hospital. This he did, Dr. Gray confirming the diagnosis. Desiring to secure for my patient the advantage of Dr. Gray's well known skill, I requested Dr. Gray to be with me at the time of operation, which he kindly consented to do. I set the day of operation for May 25, 1906, and directed

that the patient lie quietly in bed for the intervening two weeks. I also gave him a dose of 10 grains iodide of potash after meals three times a day. I believe the two weeks rest and iodide had not a little to do with the successful outcome of the case.

May 25th the patient was etherized by Dr. H. C. Andersson, and an incision was carried along the surface of the clavicle and upward along the posterior border of the sterno-cleido-mastoid muscle. We had confirmed Dr. Maloney's diagnosis of the growth, i. e., external to the vertebral artery, but upon opening we found that it also extended inward in a fusiform shape beyond the scalenus anticus muscle, thus calling for ligation of the artery in its first portion. By this time we had divided the platysma myoides muscle and the superficial and deep fascia down to the subclavian triangle. The sternal and clavicular heads of the sterno-cleido-mastoid were cut away and laid back. The external jugular vein was tied and cut and the tissues cleared away, down to the deep triangle, i. e., the first rib below, the brachial plexus externally, and the scalenus anticus muscle internally. The sterno-hyoid and the sterno-thyroid muscles were divided at their origin and laid back. The thyroid veins were pulled down and held out of the way with the subclavian veins, thus exposing the common carotid artery behind the posterior border of the sterno-mastoid. Here two difficulties presented; first, the growth had enlarged downward until the clavicle was in the way; and, second, the prevertebral fascia prevented us reaching the bifurcation of the innominate. After wasting much valuable time in attempting to reach a portion of the first part of the subclavian that would bear a ligature we abandoned the efforts and, packing the wound with sponges, we resected the clavicle, cutting it in the center and breaking the ends backward left and right.

Then we returned to the task of freeing the sac and, having failed in our efforts to reach the proximal end, we turned to the outer angle of the triangle, pulled up the brachial plexus, pushed down the subclavian vein, exposed the outer end of the aneurism, and when in healthy artery, we ligated at the distal side at two points, cut the artery between ligatures and lifted the sack upward. The scalenus muscle was cut and laid back. The superior intercostal artery was ligated and cut. The thyroid axis had fused into the sac and its separate branches had to be tied and divided. The internal mammary, and after it the vertebral, were tied and cut through. The pulse at the wrist had by this time entirely ceased and the hand seemed to be suffering for blood supply.

The growth (a large fusiform aneurism) was now turned over toward the neck and dissected loose from its attachment to the pleura and the upper mediastinum. The phrenic nerve and the carotid vessels were held away and we saw, to our intense relief, that the innominate was very short, almost absent, and a sufficient length of healthy

artery showed beyond the growth with strength to bear ligature. It was ligated at once, with strong silk and the aneurism sac cut away. The cut end of the artery was left long and was tightly sewed together by an intrasacular suture and the cut surfaces afterward "whipped over and over" with a celluloidine thread. The muscles were now replaced and sutured and the clavicle returned to its bed and wired; a drain was inserted, as about a dozen bleeding points had been ligated, and the wound closed.

Dr. Gray, Dr. Moennighoff and myself had worked hard for three hours and ten minutes. There was no accident, no hemorrhage and no shock, the arm was bandaged and wrapped in cotton, flexed and laid across the body and external warmth applied. The color of the hand soon improved. The patient rallied perfectly. He ate and rested and slept, and made no complaint, only calling to me each day with a joke and a laugh, "there has been no secondary hemorrhage yet." So day by day he improved until we could shake hands and congratulate him upon the fact that no more chance remained for the dreaded secondary hemorrhage to occur. The drain was removed early but suppuration occurred about the sternal fragment of the clavicle about two weeks after the operation and it had to be removed. The outer end held and lived.

He resumed his duties as an engineer November 1, 1906 and has been steadily working ever since. There is a strong right arm and shoulder and he can handle his engine as well as ever. The radial pulse was first noticed in March, 1907, when he was presented before the Jackson County Medical Society for examination. I believe the collateral circulation was established as follows:

I. ABOVE. 1st.—The blood of the ligated vertebral is soon replaced by anastomosis with its fellow of the left and with anastomosis with the thyroid axis on the left. 2nd.—The anastomoses of the ligated thyroid axis are maintained and blood is passed to the branches of the axillary.

II. BELOW. The intercostal arteries anastomose with the superior thoracic, long thoracic and subscapular. There are other small channels about the shoulder in such a healthy, well developed subject, which nature may make use of to re-establish the normal current of the arm.

Suffice it to say that the circulation is now fully restored and the man has as good an arm as he ever had so far as I can determine.

The case is reported in the hope that it may encourage others to attempt the cure of such cases rather than to leave them to the suffering and death that comes of uncured aneurism.

DISCUSSION.

Dr. J. D. Guyot, of Jefferson City: I believe an exception may be taken to the unqualified statements made by the doctor, that med-

ical treatment should in all cases be abandoned and condemned as worthless. While I agree with him that in every case where an aneurysm is so situated that we can ligate it surgery should be attempted; still we as surgeons should not abandon all hope of some attempt to cure an aneurysm by medical means, for there are certain aneurysms, in certain sections, where you cannot offer any hope whatsoever by surgical means. Take, for instance, an aneurysm which I saw about a year ago in the descending arch of the thoracic aorta, where it would have been impossible to ligate. Something certainly in those cases must be done in the way of medical treatment. This aneurysm was very interesting from the fact that one man wanted to open it for an abscess. In this case, all medical means were tried, but the aneurysm finally eroded and burst. I do not believe that gelatin offers much hope. I have never seen any good results from the starvation treatment, and it may be practically said that surgery offers the only hope; but in those cases where we cannot attack them surgically, we must look for something in the way of a medical treatment.

Dr. H. C. Dalton of St. Louis: Seventeen or eighteen years ago, while at the City Hospital, I operated on a case of aneurysm of the subclavian, and my patient got well. I lost sight of him for a number of years. I saw him again just last week, when he returned to me with an aneurysm as large as a hen's egg. He stated that he had remained well for about a year after the operation at the hospital, when the neurysm returned and had been there ever since. I do not know exactly whether it is in the thoracic artery or not; it is very difficult to tell, and I only report this case as another case of apparent cure after a short while. I never heard of a case in the subclavian artery returning. I cannot understand how it did, but apparently it did. Of course it may have returned in one of the collateral branches.

Dr. H. E. Pearse of Kansas City: I have nothing to say except that if the gentleman adheres to his decision to operate upon all operative cases, I certainly shall not withdraw from him any hope that he may have to hold out for medical treatment. Those patients are in just about as horrible a condition as they can be, and if there is any hope to be held out to them, I shall be glad. I will say for Dr. Dalton that if my patient has a recurrence I shall have to stand on my rights and say that it is not in the subclavian artery.

THE DIFFERENTIAL DIAGNOSIS BETWEEN "CHOREA MINOR" AND "TIC."*

BY WILLIAM W. GRAVES, M. D., ST. LOUIS, MO.

The time was, even in the recent past, when the term "chorea" was applied to several conditions, which to-day may be readily differentiated from each other. It is one of the triumphs of modern neurologists to have successfully differentiated chorea minor from other conditions resembling it. The condition formerly called "habit chorea," "habit spasm," "myospasia impulsiva" or "Gilles de la Tourette's disease," but more recently classed under the euphonious (?) name "tic," has in certain particulars, on superficial examination, a striking resemblance to chorea minor. Gilles de la Tourette, Brissaud, S. Weir Mitchell, Oppenheim, Gowers, Patrick, Meige and Feindel, and especially the last named authors, have so clearly described tic conditions, that their differentiation from chorea minor should no longer be a difficult matter; yet this differentiation is not made as often as it should be made. Tic is a common and widespread disorder, almost, if not quite, as common as chorea minor; and since it was, until recent years, always called chorea, it is not to be wondered at that it is still frequently so diagnosed. But chorea minor is rarely called tic. In such a case no serious harm can ensue because chorea minor being an acute, infectious and self limited disease, tends to spontaneous recovery, whereas the nature of tic is such, that it tends to perpetuate itself and therefore the erroneous diagnosis chorea minor in a case of tic may mean the promotion of invalidism. A correct diagnosis in chorea minor is *not*, but in tic *is* absolutely essential to the patient's welfare. This fact alone was sufficient incentive for me to choose as a subject for this occasion the title of this paper. An additional incentive for bringing this subject to your attention is, that I am constantly meeting, in both clinic and consultation practice, cases of tic of recent and long standing, which have been erroneously diagnosed as chorea minor. I have recently had the gratifying experience of guiding to complete recovery a patient who had been a victim of tic for eleven years and whose case had been repeatedly diagnosed and treated as chorea minor. The differential diagnosis between chorea minor and tic is not difficult—indeed it is a very easy problem—and requires for its solution no special training. It is one that any physician can readily make if he will only take time for observation. Some one has said "more mistakes are made in diagnosis—many more by not *looking*, than by not *knowing*," and this saying finds justification in the differentiation between chorea minor and tic, since with no information other than that obtainable by "looking" the differentiation should be readily made.

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

That this subject may be succinctly placed before you for discussion I have set down in parallel columns the salient points of contrast and resemblance which may guide one in the differentiation between chorea minor and tic.

CHOREA MINOR.

1. General nutrition suffers early in chorea—the patient growing pale and anaemic and he shows early loss of weight.

2. Expression, when face is quiet, is vacant, sullen and often stupid.

3. Disposition, is, as a rule, morose and depressed—but it is often characterized by great irritability.

4. Attention not necessarily but usually is somewhat diminished.

5. A heart murmur is rarely absent throughout the course of the disease and unless previously present, is due to the choreic process.

6. The respiratory function is often disturbed in chorea—the respirations becoming so unequal and irregular, that a normal respiratory excursion rarely occurs and the expiratory phase is often *explosive*.

7. If the muscles of articulation are involved in chorea, speech is often indistinct, difficult and momentarily impossible. Coprolalia and echolalia are never present in chorea.

8. Choreic movements are never confined to one part of the body throughout the course of the disease, though they usually *begin* in arm, face or leg, and then rapidly extend to other parts; they may be onesided in the beginning but they usually become general.

9. Choreic movements are never confined to synergically associated muscle groups, they are indefinite, vary in intensity and frequently occur in individual muscles.

10. Voluntary movements with the affected parts show a constant though variable degree of inco-ordination.

11. Choreic movements are involuntary and these movements show more or less inco-ordination.

12. Choreic movements are not lessened, but are usually increased by any voluntary effort to control them.

13. A choreic involuntary and inco-ordinate movement is a purposeless movement and was never imitative.

TIC.

1. Tic has no effect on general nutrition and this is usually good. Weight is not affected.

2. Expression is as a rule quick and vivacious.

3. Disposition is usually lively and is frequently childlike.

4. Attention is constantly diminished.

5. A heart murmur, unless previously present, is never found in tic and it is never due to the *tic* process.

6. The respiratory function rarely shows disturbance in tic and never similar to that in "chorea."

7. The muscles of articulation are never involved in *tic*—and coprolalia and echolalia are often present.

8. Tic movements are usually confined to a single part of the body but they rarely become general.

9. Tic movements are invariably confined to synergically associated muscle groups, they are definite and occur repeatedly with varying intensity, in the same muscle groups, but never in individual muscles.

10. Voluntary movements in *tic* are never inco-ordinated.

11. Tic movements, as a rule, are not consciously but *subconsciously* voluntary and they are never inco-ordinated.

12. Tic movements are lessened and may be entirely controlled for a variable period of time by voluntary effort—the oftener the effort, the greater the control.

13. A tic movement in the beginning *was* either a purposeful or an imitative movement.

14. Any voluntary movement exaggerates the choreic movements.

15. Choreic movements are increased in emotional states.

16. Choreic movements are always exaggerated when the patient is in the presence of others and less when he is alone.

17. Abnormal associated movements are always present in chorea.

18. Choreic movements are always unpleasant to the patient and are never accompanied by feelings of satisfaction.

19. In chorea minor frequently apparent, but rarely actual weakness in certain muscle groups occurs.

20. Choreic movements can not be imitated.

21. Chorea minor with or without treatments tends to complete recovery within from two to six months.

22. Chorea minor is a disease.

14. Any voluntary movement usually lessens the tic movements.

15. Tic movements are usually lessened in emotional states.

16. Tic movements are usually lessened when the patient is in the presence of others and aggravated when he is alone.

17. Abnormal associated movements are never present in tic.

18. When an inhibited tic movement gives way to the desire to tic, the ensuing tic movement is accompanied by feelings of satisfaction and pleasure to the patient.

19. Neither apparent nor actual muscle weakness is ever due to tic.

20. Tic movements may be readily imitated.

21. Tic unrecognized and unaided never tends to recovery, but naturally to perpetuate itself and it may last a life time.

22. Tic is a habit.

DISCUSSION.

Dr. William Engelbach, St. Louis: The diagnosis in these conditions is a very important matter. The treatment being so directly opposite, the one a teaching of the patient, the other a hygienic treatment and, according to some authorities, a medicinal treatment, the matter of differentiation becomes a necessity. The general nutrition of the choreic patient is one of the most important factors. In this condition, characterized by a more or less secondary anemia, there is always more or less change in the blood that it is necessary to correct. This is entirely absent in tic. It is a very interesting thing to try to explain the heart murmur in chorea, whether this murmur is due to an organic lesion of the valves or whether it is a hemic murmur or whether it is really due to a process of spasmodic contraction of the musculi tendinae that govern the valves. At least it is a very difficult thing to account for. There is no doubt that in some cases there is an organic lesion in chorea. The respiratory symptoms Dr. Graves gave are very interesting because they are not mentioned by most authorities. The irregular explosive respiration may be accounted for by the affection of the respiratory muscles that are under the control of the will. It is a question whether these same contractions occur in the involuntary muscles. I think it is a fact that we have a considerable number of heart murmurs that persist after the chorea has passed and for that reason, though we cannot explain the action of the drug, I think the salicylates are indicated in every case.

Dr. John Punton, Kansas City: The paper is of interest to the general practitioner. Medicine is a progressive science and one of the principal results of all scientific advancement is the power of mak-

ing finer discrimination in diagnosis, and any two diseases that can be subjected to at least twenty differentiations are certainly worthy of consideration.

Dr. Graves has illustrated in his paper one of the most practical facts in reference to tic, on the one hand, and chorea minor, on the other, and that is, the difference in prognosis. He emphasizes the fact that tic is simply a habit spasm, while chorea is due to some inherent cause which may be permanent, so it is very important to tell the difference. They have quite a number of things which are common to each, but others in particular, so that it is possible to differentiate. He failed to enlarge upon the etiology. The treatment of these two diseases, however, is practically the same; one may be permanent, the other only temporary, and I think it is highly essential that the general practitioner become familiar with the differential diagnosis.

Metropolitan Building, Grand and Olive.

THE SURGICAL TREATMENT OF TUBERCULAR PERITONITIS: WITH REPORT OF CASES.*

BY H. C. DALTON, M. D., ST. LOUIS.

Tuberculosis has for many centuries been man's greatest and most devastating scourge. The universal, thorough and painstaking studies which have, during the past few years, been accorded the affection, have been productive of brilliant results. Today the laity, as well as the profession throughout the civilized world, are cognizant of the important fact that tuberculosis can be not only prevented, but, when recognized early, and cared for properly, it can be cured. It goes without saying that the secret of success is sanitation.

As early as Morgagni we find descriptions of tubercular peritonitis, with the important assertion that it frequently occurred with pulmonary tuberculosis. Tubercular peritonitis possesses the peculiarity of varying remarkably in its morbid manifestations. It may appear as a few scattered nodules over some portion of the peritoneal surface, with concomitant ascites; there may be extensive and very dense adhesions; or it may present as a fibro-plastic or suppurative process.

Wunderlich studied the records of five hundred cases and found that the pathologic findings vary considerably according to the purity of the infection and the resistance of the tissues involved. 68 per cent. of Wunderlich's collected cases were of the exudative, 27 per cent. of the fibroplastic and 4 per cent. of the purulent type.

At present it is conceded that tuberculosis of the peritoneum is practically always of secondary origin. Primary tubercular perito-

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nititis is undoubtedly of rare occurrence. Borschke examined the reports of 226 cases: in only two instances did it seem probable that the disease originated in the peritoneum. The consensus of opinion is that infection usually occurs by way of the appendix, Fallopian tubes, uterus, perforated ulcer, or caseated mesenteric gland.

Mayo holds that tubal infection usually presents the purest type of tubercular peritonitis—miliary with ascites. Abbe thinks that 66 per cent. of such cases are due to infection of the thoracic lymph nodes.

Rotch has observed that in children the infection usually originates from tubercular mesenteric lymph nodes.

Cummins has recently stated that in the female, genital tuberculosis is responsible for 40 per cent. of the cases. Bybee, on the contrary, maintains that infection through the female genital tract is rare.

Tubercular peritonitis is of not infrequent occurrence. Grawitz and Bruin observed the presence of peritoneal involvement in 184 of their 13,922 autopsies. While Cummins found tubercular peritonitis in 2.7 per cent. of the 3405 cases studied by him.

Bybee observed its presence in 30 of his 872 autopsies. The literature of recent date tends to prove the erroneousness of the contention that the disease is of more frequent occurrence in females than in males. Cummins and Bybee agree that the disease is more frequent in males than in females. Cummins places the proportion at 2 to 1, while Bybee contends that the disease is two to four times as frequent in males as in females. The findings of Vierordt, Sick and others seem to bear out the contention of Bybee.

Tubercular peritonitis may appear at any age. The disease is relatively frequent in children, although statistics show that the patient is most often between the 20th and 40th years. Rotch says: "Those forms of peritoneal tuberculosis which show a marked inflammatory condition, either with or without ascites, are more common in children than in infants. In infants it is more common to have a miliary tuberculosis of the peritoneum in the course of a general tuberculosis which does not as a rule show abdominal symptoms." The symptoms of tubercular peritonitis are frequently obscure and quite misleading. The most constant and valuable symptom is pain in the lower abdomen. Kelly pins a great deal of faith to the presence of pain in the lower abdomen on micturition, or in walking. Fever of an irregular type is fairly constant. The general symptoms are pain, irregular fever, emaciation, anemia and vomiting; the local manifestations are ascites, constipation or diarrhea, and change in contour of abdomen. The palpating hand may detect presence of friction rub, or rectal examination may show tubercles in Douglas's pouch. Abdominal tenderness, emaciation, exhausting nausea and disturbances of intestinal function were prominent symptoms in Bottomley's 26 cases.

Kelly has emphasized the fact that emaciation is by no means to be always looked for in these cases. Too much importance must not be attached to the family history (Bottomley).

Mayo has observed that the patient frequently gives a history of more or less pain in the lower abdomen, which seems to be increased by peristalsis, and is relieved when the abdomen increases in size with fluid. With less fluid there is more rigid abdomen, which is often of board-like character.

Concerning the diagnosis, Johnson says: "There is no affection of the abdomen which may pursue a more latent course, and without any clear warning occasion a severe abdominal crisis, than tubercular peritonitis. The true cause of the severe abdominal crisis may remain latent, unsuspected, until an exploratory laparotomy has been undertaken. Tubercular peritonitis is, from a clinical point of view, a peculiarly imitative disease; there is hardly any acute abdominal affection which it may not, in one of its unsuspected forms simulate.

Roland Hill has reported a very interesting case of fibrous tuberculous peritonitis, leading to complete obstruction of the intestine, with the formation of a large mass distinctly discernible from the outside of the abdomen. Simple laparotomy not only relieved the distressing symptoms of obstruction, but apparently completely cured the patient.

In Nietert's remarkable case the symptoms of intestinal obstruction were due to the very dense and constricting adhesions resulting from a healed tuberculous ulcer of the intestine. It was necessary to resect 33 inches of the bowel. The patient recovered.

Johnson cites four very interesting and instructive cases in which acute intestinal obstruction occurred during the course of tubercular peritonitis. In one instance laparotomy revealed strangulation due to a band, while in a second the symptoms were found to be due to a large caseous gland pressing upon and strangulating a coil of small intestine by pushing it forward beneath a fibrous band. In the third instance cited by Johnson the obstruction was due to a thrombosis in some part of the distribution of the mesenteric vessels. In his fourth case laparotomy revealed firm adhesions dragging upon and obstructing a coil of intestine.

Morris has mentioned that in cases showing inflammatory process in the region of the Fallopian tube, it was quite probable, if abortion and gonorrhea could be excluded, that the patient had tubercular peritonitis.

Caille bases the diagnosis upon the abdominal symptoms, such as distention and pain and disturbed bowel action, emaciation, and the presence of ascites. Fever was present in all of his 13 cases.

My personal experience has been that it is not always possible to make a diagnosis. In many instances, especially where the peritoneal process is secondary to a tuberculosis of the lung or pleura, the clinical picture of the primary trouble, combined with the abdominal pain associated with ascites, will render a diagnosis fairly easy. The mere fact that the patient has a pleurisy is of import. The vaginal dis-

charge may clear up the diagnosis. In some of the cases it will be necessary to make the diagnosis by exclusion.

Sir Spencer Wells revolutionized the treatment of tubercular peritonitis when he unintentionally operated upon a patient in whom ovarian disease had been diagnosticated.

Van de Walker was perhaps the first to introduce laparotomy as a curative measure in cases of tubercular peritonitis. Koenig did much to popularize the method.

When the abdomen has been opened the presented picture points quite clearly to the source of the disease. We are guided by the congestion, increased matting of the miliary deposits, or increase of general adhesions. I cannot lay too much stress upon these facts.

When the appendix is the seat of trouble, the glands of the mesentericolum are very much enlarged. Mayo says: "A tubercular appendix at an early stage, before miliary deposits appear, may at times be diagnosticated at operation, by the large size of the glands of the mesentereolum. Murphy has mentioned the fact that in tubercular tubes the fimbriae are opened and turned out, while in gonorrheal or mixed infection they are turned in and closed.

It is very essential that the greatest possible care be taken not to open the bowel while separating plastic adhesions of the intestines, since they are the most difficult fistulae to close and very often result fatally. The least amount of damage will be done if the operator keeps as close to the parietal or pelvic peritoneum as possible while exposing the affected region.

It may be possible to evacuate a tuberculous mass and apply iodoform emulsion in glycerine to the diseased area, then closing the abdomen without drainage.

Simple evacuation of the fluid, excision of the primary focus where possible, and closure of the abdomen without drainage, will yield the best results. I fully concur with Mayo Robson that many of the recurrences following laparotomy have been due to the failure to excise the original focus in the tubes, appendix, ovaries or bowel. Just how laparotomy cures such cases remains obscure. Some writers would have us believe that laparotomy raises the opsonic index. The future must disclose the true secret.

Does the exposure of the peritoneum to the light or air, have anything to do with the cure, either by absorption or otherwise?

The prognosis depends largely upon the source of infection, the anatomic form that the disease assumes, and whether or not the primary focus is fully excised.

Sir Walter Cheyne contends that laparotomy is indicated in most all cases. He says: "There is no form in which we can say that laparotomy is absolutely useless."

Case No. 1. My first patient, John J. W., a young man 28 years of age, was treated during my superintendency of the St. Louis City

Hospital, and gave the following history: During the past few months he had been troubled with malaise, loss of appetite, more or less constant fever and a slight cough; and had noticed that he was becoming emaciated. His friends had called his attention to his jaundiced appearance and the gradually increasing abdominal distention. The patient stated that his parents were alive and in good health; there was not a history pointing to tuberculosis. Examination revealed the presence of ascites, and of a large mass in the region of the gallbladder. Exploratory laparotomy in the presence of Drs. N. B. Carson, F. J. Lutz, W. A. McCandless and the hospital staff, showed free fluid, and the presence of a large and firmly adherent mass, which latter was pressing upon and evidently obstructing the common duct. The common duct was liberated by breaking up the adhesions, the abdominal cavity flushed with warm saline solution and the abdomen closed without drainage. The result was almost miraculous. The patient gained rapidly in flesh, the jaundice disappeared quickly, and the patient was discharged cured. It was my good fortune to see him several years thereafter, at which time he was enjoying good health.

Case No. 2. Mrs. J. McK., aged 70 years was seen in 1900 in consultation with Dr. Ellis of Springdale, Ark. The patient's family and personal histories seemed practically to exclude tuberculosis. In fact the symptoms and physical findings pointed clearly to carcinoma in the region of the hepatic flexure. Laparotomy revealed the presence of a very large tumor just below the liver; the mass was so firmly adherent, and the appearance of the growth seemed to point so clearly to inoperable malignancy, that the abdomen was closed promptly and the patient placed in bed with the conclusion that death was close at hand. Imagine my surprise when I learned, several years later, that the patient had recovered. Her son mentioned in writing me, that he believed the condurango which he had administered after the operation, was responsible for the cure,—another feather in the cap of condurango.

Case No. 3. Shortly after operating upon Case No. 2, I was consulted by a young man, 27 years of age, who complained of symptoms pointing clearly to acute appendicitis. At the operation the appendix was found very much congested and thickened; the glands of the mesenterium were very much enlarged, and the peritoneum was everywhere studded with miliary tubercles. I concluded that the appendix was the primary focus of the peritoneal tuberculosis. Excision of the appendix, irrigation of the abdominal cavity with warm saline solution, and closure without drainage brought a permanent cure.

Case No. 4. Mrs. McC. aged 30, was in 1905 seen in consultation with Dr. D. S. Booth of St. Louis, Mo., who had secured the following history: Family history showed tuberculosis: patient had enjoyed fairly good health until some few months previously, at which time she took cold and was troubled with an annoying cough; an attack of

acute bronchitis followed shortly thereafter, from which time the patient dates her present trouble. She has complained of more or less constant and severe pains in the lower abdomen. An irregular fever has been noted. Pressure upon the abdomen was productive of pain. During the past few weeks the abdomen had become greatly distended and the patient had lost considerable flesh. Dr. Booth had made the diagnosis of tubercular peritonitis. At the time of operation the patient's abdomen was larger by far than that of a woman at full term. Median laparotomy was, with the assistance of Drs. Booth, Hill, Neville and Babler, performed on Thanksgiving Day. More than two gallons of straw-colored fluid were evacuated; the peritoneum was everywhere studded with miliary tubercles. After evacuation of the fluid and irrigation of the peritoneal cavity with warm saline solution, the abdomen was closed without drainage. The recovery was as uninterrupted as the cure was permanent.

DISCUSSION.

Dr. J. D. Griffith, of Kansas City: I was very much interested in a paper read on this subject not long ago in New York, by Dr. Morris. He had made quite an extensive number of experiments on dogs, in which tubercular peritonitis had been brought about by introduced tubercle bacilli, and in which he had also introduced the pure culture, and had succeeded in having these dogs get well from tubercular peritonitis, those who had not had the pure culture introduced, and those who had been relieved. I have operated on three cases of tubercular peritonitis, which I have only opened up. In one of them I did not even wash out with the saline solution. One was the plastic kind and did not get well; the other two seem to have gotten well, and I have been hoping some gentleman would tell us if he knows why it is that they do get well occasionally.

Dr. A. H. Cordier, of Kansas City: The question as to cure of these cases following the operation is one that has, of course, perplexed all who have entered into the study of this subject. Numerous theories have been advanced as to the method of cure. The simple opening of the abdomen and admitting the air and the ever-present saprophyte, has been one of the theories most generally accepted as to how these cases were cured following a simple incision. In the cases I have had, it seems to make no difference what is done in the case. The great majority recover by the simple opening of the abdomen and taking out of the fluid. The majority of these cases which I have had have been cases that had no fluid in the abdomen, the dry, fibrous sort, in which all the organs of the abdomen were so adherent that it was almost impossible to liberate the imprisoned organ. Often, in the presence of adhesions of this kind, they have recovered. I remember one case, in which I was compelled to take out some 36 or 38 inches of the intestine, with recovery of the patient. Even after I

had done this, I thought it would not do to separate too many of the intestinal adhesions, and every time I would attempt to break up one of these adhesions I would get into the bowel and have to stitch. I gave this case up as hopeless, but much to my surprise the patient recovered and remained well for years afterward, and is living yet. It doesn't seem to make any difference whether you wash out with saline solution or not; these cases recover anyway. In my opinion, a factor in the cure of these cases that has not been generally recognized, and about which very little has been said, is that the direct traumatism by the opening the abdominal cavity and handling the intestines and the viscera, is a means, directly or indirectly, of stimulating and bringing a new blood supply to the heart, and that ever increasing number of phagocytes—or whatever we may see fit to term those agents in the blood that are capable of destroying bacteria—has a great deal to do with the cure of these cases.

I do not agree with the doctor's statement that the majority of these cases come from the fallopian tube. I have never seen a single instance where the appendix or the fallopian tube was involved. It seems as though it is a disease that comes up just like any other disease, and we are not able to trace its source—evidently disseminated through the abdomen, probably from the blood itself. None of these cases should be given up as hopeless. The absence of symptoms is one noticeable phase, and many of these cases you will find as surprises while operating for the relief of other forms of pathology.

Dr. C. H. Wallace, of St. Joseph: Doctor Cordier claims that he had some cases of dry tubercular peritonitis in which a cure had resulted from opening the abdomen. He then said it was the exudative variety. The point to which I wish to call attention, is that in the cases where we find the exudative variety that improve from surgical interference, either liquidation had been present and had been absorbed, or it would have taken place if the case had gone on farther, and the pathology is the same as in the effusive variety. In talking over this question with a surgeon who has had a very extensive experience in this class of cases, I asked him which ones he regarded as operative and which not. He said that in his experience the dry variety had given negative results, except in a few cases where the process was local and could be excised, and in these he had gotten some gratifying results. My understanding is that, in the dry forms of tubercular peritonitis, the experience of operators in general has been negative as to encouraging results and these forms are considered medical cases.

Discussion concluded by Dr. Dalton: The case which interested me most was the old woman 70 years of age. I forgot to state that there were no tubercles of the mesentery. In fact, I did not handle the peritoneal cavity. I simply noted the fact that there was nothing else involved, and closed up. I believe Dr. Cordier's remarks are the best explanation we have as to the cause of the cure of these cases. Why does such a simple procedure cure so grave a disease? That it does do so we know.

A PLEA FOR THE CROSS-EYED CHILD.*

BY JOHN GREEN, JR., M. D., ST. LOUIS, MO.

Why is it necessary to enter a plea for the cross-eyed child? It is because, in my experience, and, I dare say, in the experience of my colleagues in ophthalmology, the cross-eyed child is denied a "square deal." As a direct result of improper advice given the parent the child is permitted to continue indefinitely bearing a serious deformity, resulting finally in partial or almost total loss of vision in the crossing eye. It is seldom indeed that the oculist is given the opportunity of proffering his skill to the unfortunate little one until some years have elapsed from the time the squint was first observed—years of priceless value if properly employed for the child's ocular welfare, but alas, how frequently allowed to slip by, with no effort made to remedy the defect.

Whence arises this deplorable state of affairs? Surely not with the child and only indirectly with the parent. The young mother with the few months' old babe in her arms is alarmed to see the little one's eyes turning in, perhaps momentarily, perhaps for several minutes at a time. As is well known, the motor co-ordinations of the ocular muscles are at first somewhat imperfect, and hence a transient strabismus is rather the rule than the exception in young infants. When appealed to by the anxious mother the family physician is able to give the assurance that "all will come right in time"—a prophecy almost invariably fulfilled.

After the child has passed the earliest period of infancy, has attained the age of one to five years, the mother will perhaps notice that at times one eye or the other does decidedly turn toward the nose. At first the squint is periodic and of short duration, followed by intervals during which the eyes appear entirely straight. The mother, recalling the doctor's early advice, naturally believes it again applicable, and confidently awaits the time when the eyes shall again be straight. A few months later she is disturbed to find that the squint which was at first noticeable only when the child was sick or fatigued from play, has become permanent. The crossing may be wholly confined to one eye, the other remaining straight (monolateral squint) or the crossing may alternate, shifting from one eye to the other, and constituting the so-called alternating squint. It is at this stage that the family physician is again appealed to. Upon his advice will depend the future ocular welfare of the little one. It will be well if he realizes the weighty responsibility resting upon him and justly endeavors to frame an answer in consonance with our knowledge of this affection.

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

I can readily see how the physician who daily encounters the stern realities of the battle of life with death should regard a pair of cross-eyes as a trivial ailment, too insignificant for his serious consideration. That it is of vital significance to the afflicted child I hope to be able to show you shortly.

The oculist rarely sees the squinting child when the squint first manifests itself. Almost always there is history of neglect, of delay, for several years. Why is this so? I have made careful inquiry in all cases that have come under my observation during the past six years and the conviction has been borne in upon me with ever increasing intensity that the advice given by the family physician has been largely instrumental in depriving the child of the opportunity of getting a full measure of relief. Now, what is the tale that the parent unfolds to the oculist? It is something like this: "Yes, doctor, little Johnny began to be cross-eyed right after he had the measles and we laid it to that. We took him to our family doctor and he said: Well, don't bother about that. The eyes will become straight of themselves after a while." The advice varies: "Yes, the child is cross-eyed and he will have to have glasses, but they can't be fitted to him until he is a good deal older." Or "Nothing can be done at present. When he is fifteen years old one of the eye muscles will have to be cut; that will straighten his eyes." Sometimes the assumption is that the external rectus muscle is paralyzed and that internal treatment is indicated. Whatever form the advice takes it leads to an identical result. The mother, assured that some time in the future "something can be done," does not pay any more attention to the matter, and the golden time which should be occupied in intelligent and unremitting treatment of the eyes is frittered away in total neglect.

Now, I do not hesitate to affirm that any such advice as detailed above is absolutely pernicious. Surely if the family physician were at pains to understand the etiology of convergent squint, he would never be guilty of uttering opinions so entirely at variance with our knowledge of this affection. The earlier view that convergent squint was essentially of muscular origin, in other words that it depended upon shortening of the internal recti, faulty insertion of their tendons or paralysis of the external recti, has been thoroughly disproved. Those facts which definitely indicate that the muscles are not primarily at fault are the following: (First) the power of the outward rotation of the squinting eye is perfect or nearly so; (second) a squint frequently disappears during general anaesthesia; (third) a high degree of convergence may disappear when the accommodation is paralyzed by atropin and will reappear when the effect of atropin wears off.

Donders, the great Dutch ophthalmologist, propounded the view that hypermetropia was the fundamental cause of squint. He was led to this conclusion by the following considerations: When the gaze is

transferred from a distant to a near object the eyes "focus" or "accommodate" so as to bring the image of the object sharply upon the retina. This focusing or accommodating power is accompanied by a convergence of the visual axes, which are then directed exactly to the object viewed. The functions of accommodation and convergence are thus associated, although their association is somewhat elastic. Normal sighted or emmetropic eyes when looking at a distant object are eyes "at rest," and do not require any focusing in order to see clearly. When such eyes look at an object only twelve inches away they accommodate or focus to a distance of twelve inches, and converge just sufficiently to permit their visual axes intersecting at the object. The nervous impulse required to focus the eyes at twelve inches is just sufficient to converge their visual axes to intersect at this point. Far sighted or hypermetropic eyes when looking at distant objects are not "at rest," and require a certain amount of focusing power in order to see clearly. When such eyes look at an object only twelve inches away, the amount of accommodative effort is equal to the amount required for emmetropic eyes plus the amount which has already been brought into use for the distant object. There is, therefore, an excessive accommodative power required which implies a greater nervous impulse. Now the function of convergence receiving the additional nervous stimulus is made to act too strongly and there is a tendency for the visual axes to converge to a point nearer than twelve inches. Donders assumed therefore, that hypermetropia was at the root of the evil, was, in fact, the fundamental cause of squint.

The theory of Donders was unquestionably a great step in advance, but failed to account for many of the observed facts.

It is known that the vast majority of children are hypermetropic and yet very few squint. Again, that high degrees of hypermetropia do not tend to cause squint, and lastly that the degree of refractive error has very little to do with the question whether the patient shall or shall not squint in the first instance. It remained for Claude Worth, an English ophthalmologist, to supplement the work of Donders and to point out that the essential, the fundamental cause of convergent squint lay in a defect in the "fusion faculty." Now what is the fusion faculty? It is that faculty which enables us to blend mentally the images received on the retinae of the two eyes. Worth's investigations indicate that the fusion faculty is absent at birth, the normal positions of the eye being maintained at first by the motor co-ordination. As early as the sixth month there is evidence of vision with the two eyes, or binocular vision. The faculty is complete before the end of the sixth year. Worth states that when the fusion faculty is well developed "nothing but an actual muscular paralysis can cause an eye to deviate." He states further that in some cases "owing to a congenital defect, the fusion faculty develops later than it should, or it develops very imperfectly, or it may never develop at all." In such

cases anything which disturbs the balance of the motor co-ordinations will cause squint, and such disturbances, in the order of their importance, are (1) hypermetropia; (2) unequal refraction in the two eyes; (3) congenital amblyopia; (4) a tendency of one of the eyes to turn up or in; (5) specific fevers; (6) convulsions or severe fright; (7) hereditary influence.

In brief, a child begins to squint because in the first instance its fusion faculty is poorly developed or entirely absent. Contributing to this end are the various causes enumerated above. Let us consider now what the conditions are at the *very beginning* of a case of concomitant convergent squint. The eye which turns in possesses, in the majority of cases, almost as good vision as the eye which is straight. It is only in the rare cases of congenital defective sight, or amblyopia, which recent investigations have shown to be due to hemorrhages into the retina at birth, that the defective vision has an anatomic basis. At this stage, if the squinting eye is forced into use, it will speedily regain the vision which it has begun to lose. It, however, the child is neglected, the vision of the squinting eye grows progressively worse, and may in time become so blind that the child is hardly able to count fingers when held a foot in front of the eye. When this stage has been reached it is usually too late to force the eye to take up its function again: it has become blind or amblyopic from disuse. It may safely be affirmed that only in those cases in which the educative treatment of the squinting eye is begun very shortly after the onset of the squint, will it be possible to bring about a complete restoration of vision. From this point of view alone it is absolutely essential that there be no delay in instituting treatment. Furthermore, the sooner the training to develop the sense of vision is begun, the better chance will the child have of acquiring full binocular vision.

How soon after the squint is observed should treatment be begun? *Just as soon as possible.* To quote Worth again, "In the case of a young child with a constant monolateral squint, the results of this disuse of the deviating eye is that its visual acuity gradually deteriorates." This deterioration from disuse is more rapid the younger the child. "A child with good vision in each eye who develops a constant monolateral squint at the age of six or eight months will in the absence of proper treatment become rapidly blind in the squinting eye. The loss of vision in the deviating eye is so rapid that the power of central fixation is often lost within eight or ten weeks." In an older child developing squint, the loss of vision is less rapid but none the less certain.

It is not my purpose to dwell on the treatment of squint. Suffice it to say that there are five therapeutic indications: First, to correct as accurately as possible any refractive error; second, to occlude the fixing eye, thereby forcing into use the deviating eye; third (for the same purpose), to instill atropin into the fixing eye only; fourth, to

train the fusion sense, and fifth, operation. A very widely held belief is that a child under four or five years cannot wear glasses. This is entirely erroneous. Worth records instances of infants under twelve months wearing correcting lenses with great satisfaction. At present I have under observation an eighteen months old child who came to me with a constant monolateral squint, who is wearing strong plus spherical lenses with apparent entire satisfaction.

It is only in cases where treatment has been possible from the very earliest period of the squint that a true cure can be accomplished. By "cure" I mean, not simply that the crossing eye shall be straight, but that the following additional conditions shall be fulfilled: First, that the formerly squinting eye shall have nearly or quite as good vision as the fixing eye; second, that the fusion faculty shall have been developed to the point of maintaining the highest degree of binocular vision. How very seldom this ideal result is attained, I am sure all ophthalmic surgeons will testify. Many a pair of cross eyes are made straight by glasses or operation, and this removal of the deformity may seem all sufficient to the unthinking. However, when we recall that in such cases the eyes have no ability to work together, and that one of these straightened eyes possesses only sight enough to count fingers held close to the face—is in fact to all intents and purposes a blind eye—our feelings of elation are somewhat dampened. Nor does it dispel our gloom to realize that all this might have been obviated, had the family physician properly understood his responsibility when advice was first sought.

The following cases illustrate types of strabismus as they present themselves to the oculist:

E. C. R., age six years. Father states that child's right eye has been noticed to cross slightly for about a year. There is a constant monolateral squint of about twenty degrees. In the right eye the vision is slightly below normal, in the left eye normal. Fusion sense present, but defective. After wearing glasses for compound hypermetropic astigmatism for six weeks the eyes were found to be entirely straight, and the vision of the right eye had again become normal. Training of the fusion sense was begun. At the end of three months the eyes are perfectly straight, the vision of each eye is normal and the child has full binocular vision.

M. A. M., age nine, had diphtheria five months ago, followed by slight turning in of the left eye with the complaint of double vision. Double vision disappeared in a week. (Evidently at that time a paresis of the left external rectus.) The mother states that for the past two months the right eye has turned in slightly. Examination shows the right eye convergent 15 degrees, and vision in this eye reduced to one-fourth of normal. The appropriate glasses (plus spherical) were at once prescribed, and the right eye forced to come back into use by placing a black screen in front of the left glass. Within

a month the right eye had regained almost all the lost vision and the left eye was crossing slightly behind the screen. Fusion training was begun at once and in a few weeks the child had developed full binocular vision. The eyes are now perfectly straight but vision in the right eye is still a little below normal.

D. E. H., age six years. Child's left eye has been crossing since the age of one year. Entirely neglected. Convergent squint about 25 degrees. Vision in the squinting eye reduced to one-sixth of normal. Appropriate glasses brought the eyes straight after a time, but no improvement took place in the vision of the left eye. This is a case where unquestionably the prolonged delay was responsible for the development of the partial blindness in the squinting eye.

G. B. S., age four. The right eye is said to have squinted since the age of nine months. A year ago he was taken to the family doctor, who said that the child was too young for treatment. He has therefore received none. In this case the appropriate glasses brought the eyes entirely straight, but the eye that had squinted is now only able to count fingers at two feet.

E. M., age eight years. This little girl has an alternating squint of four years' duration. There is no difference in the visual acuity of the two eyes and she fixes with either as well. All tests indicate a complete absence of the fusion faculty. Glasses appropriate to her refractive condition (low hypermetropia) diminish the degree of squint slightly, but do not abolish it. She will have to be operated upon eventually to bring the eyes straight.

The following case illustrates conditions after fifteen years of neglect:

R. M., age 20, has cross eyes since earliest years. She has worn glasses at times but for years at a time has been without them. Visual acuity in the squinting eye is reduced to counting fingers at two feet. A prolonged trial of glasses fully correcting her refractive error did not in any way influence the position or vision of the left eye. A tenotomy of the internus combined with advancement of the externus produced a first-class cosmetic result but of course had no effect on the vision of the squinting eye.

The last case which I wish to report illustrates in a striking manner how a life may be wrecked by neglect to appreciate the needs of a child with cross-eyes.

A. L., age 24 years. Left eye began to squint when he was four years old. He was entirely neglected and never consulted an oculist. Vision in right eye was good. Five months before coming under observation, while in an iron foundry, he received a splinter of steel in the right eye. The eye became infected and despite the efforts of a competent oculist was lost. The poor fellow was horrified to find that he was practically blind, the squinting eye having vision only suffi-

cient to enable him to count fingers at three feet. A year later he committed suicide.

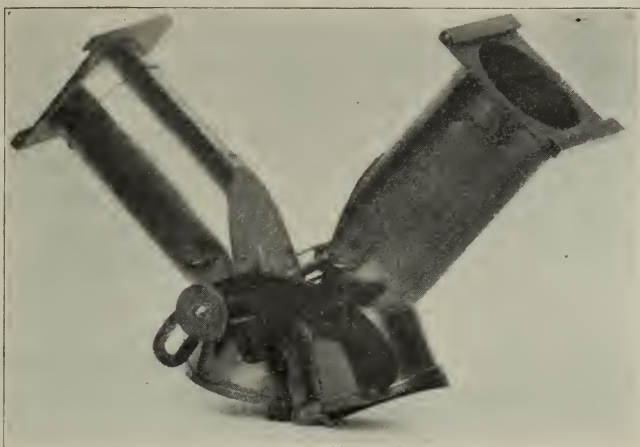
To recapitulate: Concomitant convergent squint can be definitely and completely cured only when managed from its earliest beginnings. Mere straightening of cross-eyes, after delay has permitted the development of amblyopia from disuse, falls short of an ideal therapeutic result. It is, therefore, the imperative duty of the physician whose advice is first sought to point out to the parent the disastrous results of neglect and delay and to insist strongly that treatment be instituted at once.

DISCUSSION.

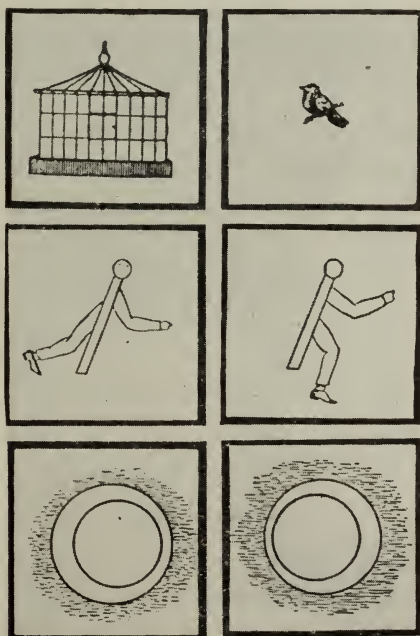
Dr. Llewellyn Williamson, Saint Louis:—I merely want to add my voice in substantiation of Dr. Green's conclusions that the average layman, and many physicians, believe the turning in of the eye is the greatest defect, while the truth is the gravest result is the deterioration of the visual power of the eye. I recall several patients in the Royal Ophthalmic Hospital, London, coming in with a squint and very much reduced vision. According to the custom of Mr. Worth, whose assistant I had the honor of being, the refraction was corrected and atropine ordered instilled twice daily into the sound eye only, the patient being ordered to return in two weeks for observation. Failing to return until months afterward when these patients were next seen it was observed that the original squinting eye had become straight and the vision normal while the previously good eye had taken on the squint and the vision retrograded. Putting atropine into the better eye only is much to be preferred to the old custom of putting it in both eyes. The squinting eye usually has the greater degree of ametropia and when atropine is used in both eyes the ability to use the squinting eye for near work is made even more difficult than the use of the sound eye, so that the result is worse than if no atropine at all be used, whereas, if we put it in the sound eye only the patient is compelled to use the squinting eye for all near work and this use, or exercise, of the squinting eye is all important in preventing deterioration of vision. The wearing of proper glasses is essential and they should be put on at the first sign of squint complicated with refractive error. I have seen babies in arms wearing glasses with short temple pieces fastening in the back with a piece of tape. The child very soon becomes accustomed to them and comes to regard them as a part of his clothing. If the glasses are broken they are merely cracked across and I know of no case where children's eyes have been injured by the breaking of them. Operative treatment in the cases I would consider only after all other means have been tried.

Dr. T. A. Coffelt: I wish Dr. Green would tell us his method of developing the fusion faculty.

Dr. Green: To indicate more fully the method of developing the fusion sense permit me to demonstrate the instrument devised by Mr. Worth. Now here is a slide bearing the picture of a bird cage



and another of a little bird. These slides are placed in the tubes in such a way that through one you see the bird and through the other you see the cage. On looking through the instrument at the light and on moving the tubes you will see the bird pass into the cage. This indicates that the eyes are, at least, seeing together. Here is another



set of slides; in this we have the figure of a man without his right leg and without his face; in the other slide we have a similar figure without the left leg and bearing a face. By moving the tubes back

and forth we finally reach a position where the images from the two eyes fuse and obtain the complete image of a man with two legs and a face. Finally we have this figure, one circle within another. One circle is displaced to the right and the other is displaced to the left. Now, when we view such pictures as these with the two eyes together we gain the impression of a solid object. In one position it gives the impression of a bucket with the end turned toward us, while in another position the end is turned from us. Many patients who are unable at first to do more than get simultaneous vision with the two eyes, will, after a few months' training, develop the ability to see objects in correct perspective.

Operative treatment should not be thought of until you have exhausted every other possible means of treatment. Each case depends upon individual conditions. If after several years you have been absolutely unable to effect a result, then the eye should be operated upon. But we should be very sure that all other means of treatment have been faithfully and persistently tried before resorting to operative treatment.

Dr Williamson, St. Louis: One point Dr. Green has failed to mention in the training of the fusion sense. When an eye squints the images fall on different portions of the retina and would cause diplopia were not the image in the squinting suppressed. That all of us have this power of suppressing an image can be demonstrated by looking at a distant object and holding the finger up before the face. Two fingers are seen and yet ordinarily when we look at objects at different distances we are not conscious of diplopia. In a squinting eye the image is suppressed and so in beginning to train the eyes of a patient with an amblyoscope it is difficult to get them to see both objects at the same time. This is done by increasing or decreasing the amount of illumination before each eye until the weak eye is able to take cognizance of its image.

Metropolitan Building, Grand and Olive.

RUPTURE OF THE BODY OF THE UTERUS DURING PARTURITION WITH REPORT OF A CASE.*

BY N. A. G. TESSON, M. D., KANSAS CITY, MO.

Rupture of the body of the uterus during parturition is one of the conditions which, while rare, is met with occasionally. The mortality following these cases is so great that it becomes of the utmost importance that this condition be recognized and the patient be given every chance to recover that surgical skill affords.

It is classed as one of the most dangerous accidents that can befall a woman.

Extra-peritoneal rupture of the uterus is of frequent occurrence. I have seen but one case that demanded immediate surgical attention. It is usually of no immediate danger to the patient, consequently it will not be considered further in this paper.

Intra-peritoneal rupture of the uterus occurs most frequently in the last months of gestation and during the second stage of labor. Any condition that causes a weakening of the walls of the uterus, such as over distension, a large child, excessive amount of amniotic liquid, or multiple pregnancy, undue pressure applied at any point of the uterus, destruction of tissue (as ulceration), trauma and many other conditions are active factors in producing this grave condition. It occurs more frequently in multipara than in primipara. It is claimed that age has but little influence in its production unless a retrograde metamorphosis be the result.

Some women it is claimed, truthfully no doubt, have very thin uterine walls. This in itself would render version a dangerous procedure.

A small pelvis, obstructions, as abnormal presentations, or tumors narrowing the parturient canal, are conditions favoring laceration. Among the exciting or immediate causes are any sudden expulsive effort, as coughing, sneezing or vomiting. I remember a case distinctly which gave me an ocular demonstration of the expulsive force of a sneeze well applied at the proper time and place. A lady was in the second stage of a tedious labor, when she gave a violent sneeze and precipitated an astonished child unceremoniously into the world.

We sometimes read and hear unkind insinuations, that certain cases of laceration were caused by careless instrumentation; but this is doubtless so seldom one of the causes that it is only necessary to remember the possibility of the evil of ill-directed efforts with instruments. Rupture of the uterus usually occurs at the end of a severe uterine contraction.

*Read before the Jackson County Medical Society, June 4, 1907.

The first symptom is usually an excruciating pain at or near the seat of the lesion. It may be possible to hear the snapping or tearing sound produced by the laceration. Ordinarily all uterine contractions cease at once and marked shock supervenes with all its alarming signs. There have been cases reported of patients in whom the shock was but slight, could feel the warmth of the escaping blood in the abdominal cavity and also detect the child in an unusual position. Hemorrhage from the vulva is by no means invariably present.

The diagnosis is easily, safely and quickly made beyond peradventure of a single pusillanimous doubt by inserting a well cleaned hand into the uterus and making a thorough examination of its walls for laceration or retained secundines. No mortal man lives who does not commit sins of omission far more frequently than he does sins of commission. The chief reason of this is cowardice, pure and simple. He downes reason and conscience and caters to that powerful irrepressible force known as public opinion, and many a woman is neglected and dies, or becomes a chronic invalid through this cowardice, and in this case, as well as those following "normal labor," as many cases are supposed to be, die later of sepsis when they could have been saved by introducing a hand, as near aseptic as possible, into the uterus and making a positive diagnosis of the condition present, and treating the case as indicated.

Regardless of the numerous criticisms this may invoke, I feel one-half inclined to make this paper "A plea for the finger." I feel that after more than twelve years' practice, the physician who hesitates to clean his hand as best he can in obstetrical cases and insert it in the uterus, is not only robbing himself of many hours of sleep that justly belong to him but is not giving his patients what is due them.

The treatment of these cases seems simple to me so far as what to do, viz: laparotomy followed by hysterorhaphy and as thorough cleansing of the abdominal cavity as possible. Some advise extraction of child through the natural passage by bringing it back through the laceration. This does not seem to be a rational procedure as it places the mother's life in greater jeopardy than does operative procedure at once. Some seven years ago I reported a case of ruptured uterus before this society, and I have the following report to make of another case.

Mrs. W., age 20, primipara, had given birth to a healthy girl baby. The labor was tedious, lasting it was claimed, over a period of three days; no forceps used. Patient did not do well after the labor. Grew gradually worse until August 3, 1905, three week later, when I saw her. Discharge up to this time was continuous and tinged considerably with blood and foul smelling.

Patient's temperature constantly above normal, 101° to 104° F.; chilly sensations, felt very weak, pulse quick and fast, had a tender condition of the uterus but no real pain, no tympanites, skin sallow

and an anxious expression. As there was no history of rupture we concluded that some of the products of conception were retained, causing the trouble present. Patient as soon as possible was placed under an anesthetic and upon dilation of cervix a grayish tissue, resembling fatty membrane, came into view; not at once recognizing what this really was, I drew it gently into view through the vulva and was greatly surprised to find I had omental tissue to deal with. The anesthetic was at once with-drawn and patient sent to the Agnew Hospital, where I immediately operated with the assistance of Dr. W. A. Shelton and Dr. F. H. Evans, anesthetist.

Upon opening the abdomen, I found the omentum incarcerated in a rupture, located at a point just posterior to where the left fallopian tube leaves the uterus. The rent was one and one-half inches long; no attempt was made to draw omentum back but it was ligated, cut off and the uterine portion removed through the vagina.

The laceration was closed with deep sutures of silk followed with Lembert suture of silk. Abdominal cavity closed with through and through sutures of silk. Patient made good recovery except irritable condition of abdomen, at site of operation, and later a sinus developed discharging pus. This condition continued for perhaps one week or ten days, when a silk suture was discovered presenting itself in the sinus. This was removed after which the sinus ceased discharging and healed.

Two years later patient gave birth to another child, going through labor satisfactorily to her physician, Dr. Evans, who attended her at this time, but not at the first labor.

CONCUSSION OF THE BRAIN.*

BY IRA A. MARSHALL, M. D., IRONTON, MO.

To properly understand thoroughly the different injuries to the brain, the magnificent home of the mind and soul of man, one should know its anatomy well; I presume you do, for the doctors of Southeast Missouri are the equal of those found anywhere in this grand domain of ours.

The brain, as you know, is divided into the cerebrum, cerebellum, pons, and the medulla oblongata. These, with their subdivisions, are minutely connected with their arteries and nerves and covered by membranes. Taking all in all, a beautiful house, a home beyond the skill of human hands to build, or even to understand,—the great battery there located sending out into different parts of the body orders which are instantly obeyed.

From Galen down through the progress of the ages physiologists,

*Read before the Southeast Missouri Medical Association, May 8, 1907, at Fredericktown, Mo.

anatomists and scientists have spent their lives studying the human brain. The infant comes into this world without knowledge. As the days go by and the years roll on toward eternity the body develops, the brain commences to work. The first word uttered is anxiously looked for and oft remembered. "In the cortex, in the gray matter lies the power of thought."

Often have you heard it said that the size of the brain has to do with the intelligence. The average brain weighs about three pounds. Webster's weighed 64 ounces; Culver 66; Lord Byron 64; Gans, 53. Developmental cultivation has more to do with intelligence, perhaps, than size. Pathologists and diagnosticians have found that when certain portions of the brain are removed, certain motions or parts of the body refuse to co-ordinate. In this manner we are able to say that an injury on a certain part of the head will produce certain symptoms and results. Let us take for example "concussion of the brain."

The term, concussion, has long been used to designate the symptoms which follow vibration of the brain consequent upon blows received directly upon the skull, or transmitted through the spinal column. It was supposed that a man might die instantly from concussion of the brain, without receiving any physical lesion of the brain substance. This assumption, I believe to be false, for fatal cases of so-called concussion of the brain exhibit, on careful examination, contusion or laceration of the brain, separation of the dura mater from the bones, compression from clot, or some distinct lesion of the contents of the cranium. Death in cases in which no such evidence of brain injury has been found, has not infrequently been attributed to concussion of the brain, without an investigation of the spinal cord and heart. Fatal changes would probably have been found there. I admit the *possibility* of the vibration causing a molecular change in the nerve cells, the capillaries, or the cerebro-spinal fluid, which could not be appreciated by our ordinary methods of investigation, and which still might be capable of producing the symptoms shown in slight concussion; but when death occurs in cases denominated concussion of the brain, I believe that distinct lesions, if carefully sought for, will always be found.

If a vessel containing jelly, of the consistence of the brain and containing similar cavities, was forcibly struck, fissures could be easily produced in it by irregular transmission of the vibrations of force. So, I believe, do lacerations and contusions of the non-homogeneous brain occur.

In my opinion, then, concussion of the brain is not a functional condition, but is used to designate organic changes. The term, therefore, should be discarded for contusion or laceration.

Cases of slight concussion very much resemble a similar degree of that obscure condition called shock. It is, perhaps, possible that a sudden, moderate force applied to the head, containing cerebro-

spinal and sympathetic nerve centers, causes pallor, vertigo, and confusion of ideas by the same pathological change that occurs when peripheral nerves are injured.

When greater violence is offered to the brain it is to be expected that, in addition to the condition of shock, symptoms will be presented due to the laceration which necessarily occurs because of the jelly-like consistence of the brain.

Lacerations and contusions of the brain may be multiple, giving rise to numerous minute extravasations of the blood, scattered throughout the brain and scarcely distinguishable from the normal vascular points seen on section. On the other hand, hemorrhage from the torn vessels may be so great and so diffused as to produce symptoms of compression of the brain, thus greatly obscuring the diagnosis. The irregularity of the base of the skull causes laceration to occur most frequently in the corresponding region of the encephalon.

Direct violence to the head, or force applied to the legs or buttocks and transmitted through the spinal column to the cranial bones, is the cause of contusions and laceration of the brain.

A blow on one part of the cranium will often give rise to laceration of the brain at the opposite side without there being any marked injury to the cerebral tissue immediately underlying the bone struck. This is due to the soft consistency of the brain, and is termed contusion by counter-stroke.

When a slight blow has been received by the brain, the patient at once becomes giddy, is confused in his ideas, feels weak, staggers and perhaps would fall, if not steadied by grasping some support. At the same time his face becomes pallid, and his heart's action feeble. There is a feeling of nausea, and vomiting sometimes actually occurs. These slight cases do not exhibit actual unconsciousness, but the patient is "stunned," and for a moment is not able to collect his thoughts. He, however, promptly returns to his normal state. This is a condition in which it is possible, perhaps that no laceration of the brain, nervous structure or blood-vessels occurs; and such cases are those that resemble surgical shock of slight severity.

The violent shaking of the brain caused by the application of a severe force is followed by symptoms of gravity, which are due, in my opinion, to the production of contusion or laceration of the brain or its membranes. The patient is almost but, as a rule, not completely unconscious, lies motionless with a cold, pallid skin, has a feeble, fluttering pulse and heart, and sometimes passes urine and feces involuntarily. The insensibility is not a complete coma, for usually the patient can be roused by loud questioning to utter a monosyllable or groan.

The pupils vary in different cases as to contraction or dilation, and the two eyes may not be alike in this respect. Usually the pupils react to the stimulus of light. The breathing is quiet though it may

be feeble and shallow; there is no hemiplegia and the limbs if pricked with a pin will be withdrawn, though probably in a lazy manner. Vomiting is likely to occur as the patient begins to react from the semi-unconscious state which immediately succeeded the injury. Convulsions sometimes take place after such cerebral injuries.

The location of the contusion is an important factor in the determination of special injuries. The symptoms just described may last a few hours or a day, before signs of recovery or of progressive inflammation supervene. When return to health is to ensue, the symptoms of the brain contusion slowly subside, and the patient's functions assume their normal condition. It often happens, however, that headache, vertigo, impaired memory and other cerebral sequelæ remain.

When the issue of the injury is to be an unfavorable one, the patient either sinks into a comatose state, without reacting, or, if he does react, soon presents the characteristic symptoms of encephalitis.

The prognosis is grave in all cases of contusion of the brain, because it is impossible to define accurately the extent of the lesion and because even slight lacerations and contusions are liable to impair the mental functions and the special senses.

All injuries producing vibration or concussion of the brain, followed by the semi-unconsciousness mentioned, are serious, because there is organic lesion of the brain tissue.

Some writers speak of three stages of concussion of the brain, viz.: collapse, reaction, and inflammation. I object to this division, and, indeed, ignore entirely the term concussion of the brain, since I do not believe in the existence of a functional disturbance of the brain without organic lesion. Concussion of a muscle or bone causes a definite lesion called contusion, fracture, laceration; so concussion of the brain, if it produces symptoms, must cause an organic lesion. In cases subjected to a careful autopsy such lesions are found though it is possible that instances may occur in which organic change is too slight to be appreciated by our present knowledge and means of investigation.

Concussion or vibration of the brain should not be considered a condition of disease of the brain, but merely a case of laceration and contusion of the organ.

Let the term concussion, as usually employed, be dropped and contusion or laceration substituted, and such symptoms as those I have been describing will be better understood and better treated. The three stages of concussion called the stage of collapse, that of reaction, and that of inflammation, are relics of the old nomenclatures, and are unnecessary. If concussion is synonymous with contusion or laceration, as it should be, the occurrence of reactionary and inflammatory phenomena is readily intelligible.

I wish to report three interesting cases which occurred in my practice, all differing in some respects:

On Jan. 16th, John K., a boy 15 years of age, jumped off the rear end of No. 18, Hot Springs Special, running at 50 miles an hour, alighted on feet, turned summersault, finally striking on head, causing slight contusion on nose, forehead and top of head. Was brought to depot placed on cot and when I saw him he was unconscious, vomiting, labored breathing, pulse very weak and pupils dilated. He was taken to hotel and remained in about the same condition for 48 hours. He could finally be aroused but would return to a sleeping stupor; would take water or a little nourishment; did not know any one or how he came by his injury. It was about ten days before his memory began to return. He seemed to know things that happened at the time but the past was a total blank to him. His pupils were slightly dilated; pulse full and hard, gait unsteady and halting. It is now four months since accident occurred and he has about recovered.

Case 2. S. D., boy aged fourteen, stout and very athletic, while playing catch-ball with his schoolmates, was struck on temple, or about midway between right ear and eye. The ball was made of twine wound on a walnut. The walnut weighed $\frac{1}{2}$ ounce. I think the ball altogether would not have weighed more than $1\frac{1}{2}$ ounces. It was thrown a distance of from twelve to fifteen feet. It did not knock him down. He walked home, $1\frac{1}{2}$ miles, and was helping his father when he lay down on ground and went to sleep. He could be aroused and was conscious; did not complain of any pain; pupil on right side dilated; pulse fair, very little swelling and no tenderness or sign of fractured bone at sight of injury. He remained in about this condition for forty-eight hours then became very nervous, especially lower part of body and limbs. Could not be held on bed; pupil in left eye became dilated; pulse 180; temperature, 101 degrees; could be aroused but would go back to sleep. At this time when turned on left side nervousness would disappear. Perspired very profusely. Finally on fourth day he died.

Case 3. This is not properly a case of concussion, but is very interesting, being an injury to the medulla oblongata. R. McG., age thirty-one was shot with No. 32 pistol ball; entered neck two inches below right ear; passed between atlas and occipital bone, through cord, up into foramen magnum, through medulla oblongata, lodged in petrous portion of temporal bone of left side; was injured on Sept. 3rd, 6 p. m. When I saw him pulse was slow, scarcely perceptible; breathing slow and labored; pupils slightly dilated; was aroused with difficulty; remained in this condition about thirty-six hours; lower limbs became partly paralyzed, and on the morning of the fifth he died.

MEDICAL ETHICS.*

BY O. B. HALL, M. D., WARRENSBURG, MO.

It might seem that after being sixty years before the minds of such a well established profession, the code of ethics, as adopted by the American Medical Association, might be laid on the top shelf of our libraries to be thought of only when some mooted or intricate question was to be disposed of. But whether it be due to the fallibility of the mind or the selfishness and greed of the animal within us, like the pages of holy writ and the statutory laws of our land, it must ever be spread open for our frequent perusal.

It is well that we have some criterion in every hope and aspiration in life. To anchor our ambition to the stars and our souls in eternity may seem to some like worthless dreams, and yet, this world would be but an image of what it is, were it not for the dreamers and idealists.

The medical profession should be proud of the man who, one century ago, wrote the code which schools the morals and general behavior of the medical world of to-day. Without these grand principles to form a working basis for improvement, the profession of medicine as applied to the healing art would be but a business, commercially utilizing mystery, deception and intrigue.

Much that is beautiful and conducive to the highest and most splendid traits of human character, and to the development and success of the best known type of civilization would be utterly banished from existence, if the standard of morals now upheld by the mighty phalanx of practicing physicians, throughout the length and breadth of this universe was lost from our view.

It is indeed sad to know that a few of our number cannot indulge in any higher thoughts and practices than those which ultimately jeopardize the interests of their own profession, for the sake of accumulating a little wealth, easily and quickly.

Too often do we find men who seek short cuts to comfort and notoriety. Wrongly judging the hard-working and scrupulous physician to make money, the young man is deluded and ogled into the desire to be a "doctor." Not being imbued with the real desire wrought by natural adoption and instinct to study medicine and its allied subjects for the love of the knowledge and the eminence incident to much sacrifice and long years of toil and study, the medical college is entered as soon as the requirements for admission can be complied with. With the single determination to be graduated, the real object of the four years study is lost, and the young man, with a degree much too large for himself, starts into practice with the idea

*Read before the Johnson County Medical Society, September 17th,

that soon his coffers will be filled to over-flowing, and that the old doctors will all be consigned to empty shelves. He gradually learns his mistake, and, not being acquainted with the hardships of competition or sacrifice which should have been learned during or prior to college days, resorts to the many disreputable make-shifts to provide for his own wants and those of his family. Being unable to honestly compete with his fellows, he continues his career as a mountebank and charlatan.

There is another class of men in this work who are able and intelligent, but who direct all their energy to obtain money from the public in any way which best suits their individual fancy. The writer would not hesitate to class all such as moral perverts to be rigidly supervised by lawful authorities.

The extreme freedom with which a man is graced in this country makes possible almost all kinds of graft and trickery, hence it is only through the combined efforts of good and intelligent medical men, that professional ethics and an inspiration to seek christian methods in medical practice, is unfurled as a banner for our guidance and protection.

Much is left to the discretion of every practitioner. No written laws can ever be applied to master intellectual man. Except as the principles of right and wrong are indelibly stamped upon the mind and conscience, little can be accomplished by the establishing of ethical standards.

Almost every day the doctor's mind and conscience are disturbed by outside solicitation and inducement. Often is he tempted to swing open the doors to bad morals and questionable devices, and obtain seeming advantage and prosperity. Frequently does the honest physician refuse to produce abortion upon some member of his clientele and lose a goodly fee, when he knows that she will fall into the clutches of some ignorant rascal who will do the job and get the money, with the final results that the woman fails in health and perhaps gives her life, because of the ignorance or carelessness of the man who pretended to do the work. Whether to adhere to the code strictly and be haunted by the pleadings of some misguided and unfortunate woman, or indulge in the performance of a criminal act and sustain the prickings of a sensitive conscience, is probably an unsolved problem in the mind of many a physician.

It is not always easy to determine what constitutes the best ethics in consultation practice. What may seem right to one, may appear wrong to another. I cannot conceive of a more opportune time to disable a fellow practitioner than when called in consultation with him. Neither can there be a time when a greater wrong may be done a patient who expects to be dealt with honorably, and hopes to be benefited by employing a physician in consultation. The proper adjustment of the relationship which exists between both physicians and the pa-

tient, and between the physicians themselves, not only to comply with the ethical standards, but to render honest and painstaking service to the sick, is a matter which cannot be considered lightly. It is no less than an art to meet a fellow-worker in consultation, and give satisfaction to the attending physician, and at the same time, meet the demands of a curious and interrogating public. Professional dignity and independence are qualifications which must be possessed in no small degree. It is imperative that the attending physician receive all the assistance which the one consulted can possibly bestow, and in such a manner that no offense will be taken or have reason for any.

One of the practices among medical men, which, in the writer's judgment, is paramount to commercialism in lowering the standard of the medical profession, in the minds of the general public, is selling professional knowledge or labor for a given period of time, for a stipulated compensation, i. e., contract practice, agreeing to practice medicine and surgery for a company, organization or corporation, for previously arranged fees. It is so common among us that to say aught against it is to oppose some one. But progress is made only through conflict, and the writer feels quite certain that a powerful opposition has already inaugurated itself against contract practice, wherever and in whatever form it is practiced.

The potential factor in introducing such practice is cheapness of labor. It is known by all institutions, that by procuring the written promise in advance much money will be saved in doctor bills. The reason such contracts are accepted is the certainty of a steady income. Perhaps in mining institutions and corporations of considerable magnitude, where the physician is employed by the company direct and paid an adequate compensation, it may be considered legitimate and ethical to enter into an agreement to give time and labor for a stipulated, momentary consideration. Granting the possibilities and benefits claimed for such contracts, the writer can, in no wise, hold the same liberal views toward contracts with smaller concerns for the sake of a few dollars per year, or influence gained by the associations or the reputation of being a good fellow. The farmer sells his produce, the merchant his wares and the laborer his time for what it will bring in the open market, which is always subject to the fluctuations of commercial interests and values. Is it possible that the medical profession should subject its practice to the bantering and trade instincts of the huckster or raffled off to the highest bidder, or even sold for a consideration adjudged competent by two contracting parties? If anything can act as a menace to professional dignity, it is bantering over the price to be charged for professional services. If any society, organization or corporation wishes the services of any special physician, let it compensate according to the regularly established fee bill of the community.

There is another practice among medical men, which is not con-

ducive to the progress of medical practice. It is using influence external to those acquired by actual practice of medicine, such as society, church relationship, lodges, politics, business organizations, etc. Nothing, in fact, but the real ability to heal and prevent disease, should be utilized to advance personal interests in the practice of medicine, and even then, the ego should be forgotten in the burning desire to save and protect human beings from the ravages of disease and the sins which doth so easily beset members of our own race. To do good unto others, and thereby crown ourselves with glory, is the only motto which is naturally calculated to lift men to higher planes of development.

It has been agreed by some, that the rich should pay the bills of the poor, or, at least, should pay enough more than the poor, to equalize the income of the physician from labor expended among the various classes of people. Without going into the reasons why some people are more financially competent than others, and therefore held to be proportionately responsible, it seems but just to the well-to-do, in recognition of abilities, hard work and economy, that fees for certain grades of work should be universal, and if the deserving poor, (and I believe there are such) are unable to pay the full bill, let them pay what they can, and get a receipt in full. The longer the writer practices medicine, the less he believes in cut-rate prices. The rating of the fee-bill should be high, and maintained thus: The physician should get his money whenever possible, and when not, he should donate the balance to poverty,—and so let it be understood. For the more difficult and intricate surgical work and practice of an extraordinary character, special arrangements should be made, and the fees regulated accordingly.

At times, it seems but right to charge a smaller fee, when called in to see a patient while passing the house or waiting upon a near neighbor, but experience has proven that it is better to charge the regulation fees at all times and under all circumstances. It is not only more convenient to the patient to call a physician from the street or have him living next door, and therefore worth more, but the inconvenience to the physician, and the undue liberties often taken of the physician's time, under such circumstances, are sufficient to justify charging the regular fees for such services. Then again, it is but just to the other members of the profession, to adhere as closely as possible to the fee-bill. The ultimatum of ethics in medical practice is the protection of the rights of one another.

In conclusion let us assert that, while it is the God-placed duty of every physician to protect and improve his own interests on the practical side of life, it is far more important that he cultivate and develop the ability to diagnose and treat disease, and become more acute to the finer and more delicate perceptions of instinct and mentality, all to the end that brother-practicians be courteously protected in their rights, and that the general public be given the products of a fertile and ethical profession. Quality alone can win, and the fittest will survive.

REPORT OF A CASE OF INFANTILE PARALYSIS.*

BY GEO. M. MOORE, M. D., LINN CREEK, MO.

The patient we have before us to-day is of great interest to us all. About four weeks ago this little fellow was stricken with infantile paralysis. These cases are usually seen between the ages of six months and seven years. This little boy is seven years old and has had good health all his life; if you will look at him you will see he is well grown for a boy of his age; he seems well yet. I will give in brief the history of this case.

Some four weeks ago this patient went to bed in his usual health; next morning he was paralyzed in both legs, could not use them to any degree; could only drag them in the bed or on the floor. This seems to be the usual history of these cases. One point of interest is that the paralysis is at its maximum in the commencement, so with this bit of history we can say to the father that his boy is as bad as he will get to be. We have it from such men as J. Lewis Smith, Holt and others that the rule is that these little patients continue to improve to a certain degree of recovery. Another point of interest is that the bladder and the bowels remain unaffected, since only the muscles of volition are involved. The fever that usually is present in the beginning of these cases is wanting, as we have no history of any fever in this case. This might have been overlooked as this fever is usually of short duration—from two to three days.

Etiology: The most common lesions in these cases are the inflammation of the anterior cornua of the spinal cord. But the case we have before us must be of a different cause inasmuch as the paralysis came on too suddenly. We then will have to look for another cause; it is possible we have to deal with a sudden exposure to wet or to wind or from sleeping in too damp or too cold a place.

Diagnosis: This is usually easy, for the paralysis is present and the history of the case ordinarily unmistakable.

Prognosis: It may be confidently predicted, if the child be seen early and correctly treated, that the paralysis will soon diminish, if it cannot entirely be cured. But on the other hand if we treat a case of this kind and do not get results soon, we then expect some more serious trouble, for at this point we have the wasting of the muscles, and the tissue waste is great; the appetite is poor and the patient is usually run down, and it is hard to start improvement. But most of these patients begin to improve early.

The treatment of these cases is simple, but must be right. We should at the commencement of our treatment prevent if possible the exciting causes; we should see to it that the patient's nervous system

*Read before the Camden County Medical Society, June, 1906.

is protected; he should not be let have his way to run in the rain or snow, or bad weather of any kind; he should have good food, easy of digestion, should drink plenty of sweet milk and eat at regular meal times; the bowels should be kept open.

Local treatment is very useful at all periods of the paralysis; some stimulating liniment should be used over the spine and over the limbs. For internal administration ergot, bromide of potassium, bromide of ammonia, at first, are the very best agents to be used for they lessen the congestion of the spinal cord. If after two or three weeks we do not have some marked improvement, we should change our treatment to something like this:

Strych. sulphat.	gr. i.
Ferri pyrophosphat.	grs. xxx.
Acidi. phosphorici, dil.	dr. ss.
Syr. zingib.	oz. ii ss.

Misce et Sig. Fifteen drops in water three times daily to a child of two years.

The limbs should be bathed in hot water for some twenty-five minutes, and then rubbed well for some minutes, to cause considerable stimulus to the parts; after the bath and the rubbing, the liniment should be used freely until the skin is quite red; the bath of the legs should be given about every other day but the liniment should be applied every day. If we see these little patients early in their sickness, we should give a brisk laxative and a fever mixture, if the fever is high enough to warrant such action. These little patients should remain in bed and the affected limb or limbs wrapped in cotton. But the time for this treatment is usually past before the physician is called. Blistering and other counter-irritation to the back, I consider irrational and cruel to the child and should never be used.

The care of the child is important. The general nutrition should be carefully maintained by proper feeding and by taking it out of doors every day. As soon as the child can bear friction the part should be carefully rubbed, at first once a day. The muscles should be rubbed and kneaded, even pinched, using either the bare hands or, better still, sweet oil or cod-liver oil; this is worth a great deal, for it stimulates the muscles. I informed the father at his visit at my office that complete recovery could not be expected, but I thought I would soon be able to do his child some good, and the child seems improved to some degree. We might say, in passing, that we might have deformities in these cases. It is always better to tell the parents about this for they might think it was due to the treatment. There is no other disease in which the physician is more often subjected to unjust criticism and we should mention these points of interest so that the parent will not be mistaken about the results.

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PUBLICATION COMMITTEE:

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EDITORIAL.

LIFE INSURANCE EXAMINATION FEES.

The decided stand taken by the organized profession throughout the country in the matter of fees for life insurance examinations, has resulted in the complete vindication of the attitude of the profession. The majority of those insurance companies which reduced the fees from five dollars to three dollars have been forced to restore the five dollar fee. The restoration of the five dollar fee is a tacit acknowledgment on the part of the companies that the position taken by the profession was correct, but, far from openly acknowledging this, some of the companies offered most puerile and transparent reasons for acceding to the righteous demands of the profession. We know, however, that the victory was obtained only through the general and united action of the profession, and a firm adherence to the position assumed.

Viewed at first with scorn and derision, it soon became apparent to the companies that their business life depended upon the co-operation of the good element in the medical profession. In every community, when the companies sought new examiners among capable physicians at the smaller fee, they found the great majority of reputable practitioners firm in refusing to make examinations for less than five dollars; moreover, they knew it would be suicidal to accept examinations from incompetent and irresponsible persons. And, finally, these corporations realized that the respectable physician placed a certain valuation upon his services and was not to be hired as a day laborer might be.

In the light of these developments, which could not have been accomplished without state organization, the time is opportune to bring the matter of state organization, in all its bearings, before those reputable members of the profession who are still outside its beneficent pale. These should be informed of what has been accomplished

through state and national organizations. The insurance companies never would have rescinded their action in answer to half-hearted protests from scattered members of the profession. Again, we never could have secured the passage of the medical practice act, which has placed Missouri on the same plane with other states owning rigid laws governing the practice of medicine; never, indeed, could the medical profession have raised its standard higher than the estimation in which it was held by people outside the profession, through any other means than those of compact, and of thorough, harmonious and determined organization.

Every member of the medical profession in the state is benefited by the work that is being done by our organization; and those eligible physicians who are not members of county societies pursue a selfish course in remaining outside the local body. They are depriving themselves of much practical and useful information and selfishly reserving much knowledge gained in their own work, by refusing to meet with their fellow practitioners, for the purpose of studying the problems arising in every phase of medical life. They are further guilty of selfishness in withholding their active support to the organized profession in their communities when efforts are put forth to accomplish worthy objects, unattainable through any other means.

We should like to see every reputable physician in each county a member of the local society. Through unity of purpose enough has been done to prove the effectiveness of organization to those doubters who have held back, in the belief that individual effort could accomplish all that was needed or desired; and now they should be approached again with an invitation to join and a statement of what has been done and what can be done by the united efforts of all worthy practitioners.

NEW MEMBERS TO BE EXEMPT FROM DUES FROM OCTOBER TO DECEMBER.

The Executive Committee announces that a resolution has been adopted requesting all affiliated county societies to accept dues from new members received from October 1st to December 31st, in payment of dues from the time of admission to December 31st, 1908.

COUNTY SOCIETY SECRETARIES' ASSOCIATION.

The officers of the Association, charged with the organization of the profession, have under consideration the calling of a meeting of the secretaries of the component county societies, during December or January, for the purpose of discussing means of securing a permanent organization of the county society secretaries.

One of the most important branches of state medical organization work is the formation of county society secretaries' associations. The

county society secretaries of Pennsylvania and of Ohio have organized such bodies, with the result that interest in the work of the county secretary has greatly increased. The work of the county society secretary is of the highest importance in furthering the effectiveness of the state organization. Viewed from any standpoint, the organization of the county society secretaries can have only a beneficial effect upon the work of the entire State Association. We earnestly hope the meeting will result in the permanent organization of the county secretaries.

On another page we publish several letters from county society secretaries, all endorsing the idea.

The annual meeting of the Medical Society of the State of Pennsylvania was held at Reading, September 23-26. The Association has a membership of 4,826, a gain of 229 over 1906. There were 546 members in attendance.

One of the features of the meeting was the conference of secretaries of county societies. A number of papers were read, each dealing with some phase of the multifarious duties of the secretary, and, in addition, addresses were delivered by other members of the Association. Dr. Geo. H. Simmons, Secretary of the American Medical Association, was a guest of the Association and addressed the secretaries' conference. The temporary organization formed in 1906 was made permanent.

The Ohio State Medical Association Annual Meeting occurred at Cedar Springs, August 28-30. Resolutions were adopted disapproving the attitude of Senator Foraker and other members of Congress from Ohio with reference to the National Pure Food and Drug Bill, and a vote of thanks was tendered other members for supporting and voting for the passage of the Bill.

A resolution was adopted urging the committee on public policy and legislation to work to the end of having all appointments of medical officers in the state made from nominations submitted by the state and county medical societies. The funds of the Association not permitting an appropriation to this committee, a resolution carried requesting each county society to contribute fifty cent per capita, the sum to be collected from individual members if necessary. The Association has a membership of 3,615, and 546 members were present at the annual meeting.

The county secretaries' association held its second annual meeting during the session and effected permanent organization. The work of the secretaries' association was reviewed and discussed and permanent organization was heartily endorsed.

NEW AND NON-OFFICIAL REMEDIES.

The following articles have been accepted by the Council on Pharmacy and Chemistry since last report:

APIOL.

APIOLUM CRYSTALLISATUM. PARSLEY CAMPHOR.

Apiol may be obtained by extracting the oleoresin (oleoresin of parsley seed, which see) with ether and subsequent purification. It may also be obtained by submitting parsley seed to steam distillation, cooling the volatile oil and collecting and purifying the crystals which separate.

Apiol crystallizes in long needles, having a faint odor of parsley, melting at 30 C. (86 F.) and boiling at 294 C. (561.2 F.). It is insoluble in water, but readily soluble in alcohol and ether. With strong sulphuric acid it forms a blood red solution. Apiol is not affected by aqueous solutions of potassium or sodium hydroxide, but by alcoholic solution of potassium or sodium hydroxide it is gradually converted to isoapiol, which melts at 56 C. (140 F.).

Actions and Uses.—Apiol is said to produce a cerebral excitation very similar to that induced by coffee and in larger doses a species of very similar to that induced by coffee and in larger does a species of intoxication, with vertigo, ringing in the ears and severe frontal headache.

Apiol has been used as an antiperiodic, but is regarded as of inferior rank for this purpose. It has also been recommended in the treatment of amenorrhea.

Dosage.—0.13 to 0.3 Gm. (2 to 5 grains) in capsules, as an emenagogue, 0.3 to 1 Gm. (4 to 15 grams) as an antipyretic.

CHOLOGESTIN.

A liquid of which each 15 Cc. (4 fluidrams) is said to contain the amorphous sodium salt of glycocholic acid, 0.13 Gm. (12 grains); true sodium salicylate from the natural oil of wintergreen, 0.16 Gm. (2½ grains); pancreatin, 0.3 Gm. (5 grains); sodium bicarbonate, 0.3 Gm. (5 grains) in a menstruum containing 15 per cent. alcohol.

Actions and Uses.—Chologestin is claimed to be a biliary and intestinal antiseptic. It is said to increase the flow of bile and to aid in the digestion of fats. It is said to be useful in the treatment of flatulence, distension, catarrhal conditions of the biliary passages and constipation due to hepatic torpor.

Dosage.—15 Cc. (4 fluidrams) in water or other non-acid vehicle three times a day after meals.

Prepared by F. H. Strong Co., New York. U. S. trademark No. 61767.

DIAZYME ESSENCE.

A liquid stated to contain the amylolytic enzyme of the pancreas, devoid of trypsin and lipase in a menstruum containing 18.5 per cent. of alcohol by volume.

Diazyme essence is an amber fluid of aromatic taste and odor and slightly acid reaction.

One Cc. will convert 200 Gm. of pure starch mucilage, containing 8 Gm. of dry starch, the mixture being kept at 40 C., so that the solution will cease to give a color reaction with iodine at the end of ten minutes.

Actions and Uses.—Diazyme is capable of digesting starch and is said to be useful to compensate for deficient salivary and pancreatic action in the digestion of starch.

Dosage.—4 to 8 Cc. (1 to 2 fluidrams).

Manufactured by Fairchild Bros. & Foster, New York. U. S. trademark No. 44878.

DIAZYME GLYCEROLE.

A liquid stated to contain the amylolytic enzyme of the pancreas, devoid of trypsin and lipase, in a menstruum containing about 60 per cent. of glycerin by volume.

It is a dense amber fluid, of agreeable taste and odor, and of slightly acid reaction.

One Cc. will convert, at 40 c., 200 Gm. of pure starch mucilage, containing 8 Gm. dry starch, so that the solution will cease to give a color reaction with iodine in 10 minutes.

Actions, Uses and Dosage.—See Diazyme Essence.

Manufactured by Fairchild Bros. & Foster, New York. U. S. trademark No. 44878.

EMULSION CLOFTLIN.

Each 30 Cc. (1 fluidounce) is said to contain calcium hypophosphite, 0.4 Gm. (6 grains); manganese hypophosphite, 0.2 Gm. (3 grains); glycerin, 3 Cc. (50 minims); cod liver oil, 15 Cc. (4 fluidrams).

Dosage.—15 Cc. (4 fluidrams).

Prepared by the Cloftlin Chemical Co., New York.

OLEORESIN OF PARSLEY SEED.

OLEORESIN APIOL. APIOL, GREEN.

An oleoresin obtained from parsley seed by extraction with alcohol.

Parsley seed is extracted with alcohol, the alcohol recovered, and the liquid portion of the residue freed from the solid waxy matter which separates on standing.

Oleoresin of parsley seed is a greenish, oily liquid, insoluble in water, but soluble in alcohol, ether, and chloroform. Sp. gr. about 1.05.

Actions and Uses.—See Apiol.

Dosage.—0.3 to 1 Cc. (5 to 15 minims) in capsules.

REGULIN.

A mixture of agar-agar in a dry form with extract of cascara sagrada representing 20 per cent. of an aqueous fluidextract of cascara sagrada.

Regulin is in the form of brown scales which slowly absorb water to form a jelly. It is odorless and tasteless.

Actions and Uses.—When taken into the stomach, regulin absorbs water which is said to be retained throughout the intestinal canal, and, as the material is indigestible, the bulk of the feces is increased to correspond to the amount of water absorbed. It is non-irritating and softens the fecal masses. Some laxative action is exerted by the cascara sagrada.

Regulin is recommended for the treatment of habitual constipation.

Dosage.—From a teaspoonful to a tablespoonful once daily in stewed apples, mashed potatoes or similar food

Prepared by the Chemische Fabrik, Helfenberg, A. G., near Dresden, Germany. (Reinschild Chemical Co., New York.)

TANPHENYFORM.

Tanphenyform is a mixture said to be composed of tannin albuminate 63.9 parts (approximately equivalent to tannin 35 parts), hexamethylenamine 8.3 parts, phenyl salicylate (salol) 27.8 parts.

Dosage.—0.6 to 2 Gm. (10 to 30 grains) 3 to 5 times a day. It is supplied in the form of a powder and also in 5 and 10 grain capsules.

Prepared by Wm. R. Warner & Co., Philadelphia.

CORRESPONDENCE.

CONCERNING THE MEETING OF COUNTY SECRETARIES.

"The idea is a good one and I will do all I can to make the meeting a success. We need something to stir us up.

E. N. CHASTAIN,

Secretary, Bates County Medical Society.

"I think the idea of calling a meeting of the secretaries and councillors is a good one. We certainly need a more united action and a better understanding as to what we want. I shall be glad to co-operate in making the meeting a success."

S. L. BAYSINGER,

Secretary, Phelps County Medical Society.

"I am of the opinion that a meeting of the secretaries and councillors of the various districts would result in benefit to the profession. I am willing at any time to aid in promoting medical organization, as I am sure that is the best means to increase the influence of the profession and to secure good legislation and scientific work.

W. R. PATTERSON,

Secretary, Moniteau County Medical Society.

"I think there is no doubt but what we could get a good attendance of the councillors and the secretaries, should the meeting be called, for these officers are the life of the local societies. I will try and attend and do all I can to create an interest."

W. G. JONES,

Secretary, Benton County Medical Society.

To the Members of the State Medical Association:

Inasmuch as the State Medical Association is largely composed of members living in the smaller towns of the state, and that many valuable jewels lie hidden in the untold experiences of hundreds of these rural doctors, only awaiting an invited opportunity to reveal their luster, I, as chairman of the medical section, as a member of the committee on the scientific program, and also by the request of our worthy President, Dr. W. S. Allee, extend a special invitation to you who are in the rural and remote regions of the State to join with those who have given their time and support so freely in the past towards promoting the interest of the Association. We kindly solicit papers from those who have never heretofore taken an active interest in the Association, who have an abundance of interesting items never before related by any one. The bulk of membership of the State Association is composed largely of country doctors of wide experience and this class of physicians are more in evidence at the annual meetings.

I appeal to the presidents of county societies to have one or more of their members write papers to be read at the next meeting of the State Association, to be held at Springfield in May. Have the essayists forward title of the subject at an early date, either to Dr. H. S. Pearse, Kansas City; Paul Y. Tupper, St. Louis; Gail D. Allee, Lamar; or myself at Butler, and we will see to having their names appear on the program. I wish to state, however, that if more than enough papers to complete the program are sent in we will be compelled either to leave them out or make some arrangement to have the overplus read by title, that they may enter into the proceedings of the meeting and be published later in the State Journal.

Please send in title early, which will afford you a better opportunity of having a favorable space on the program.

T. F. LOCKWOOD, M. D.,

Chairman of the Medical Section.

To the Secretaries of the County Medical Societies:

At a meeting of the Committee on Public Policy and Legislation held in Nevada, October 3, 1907, a number of matters of interest to the profession were discussed and it was decided to ask you to take up some of them with your respective societies and, after getting an expression of their wishes, to communicate the same to the Secretary of our State Society, Dr. A. W. McAlester, of Kansas City. We therefore call your attention to the report of this meeting, published below, and ask that you read this at the next meeting of your society; that you discuss these points and others; then let the committee have the benefit of your deliberations.

Hoping you will receive this through our State Journal and treat it as a personal communication, we respectfully await your action.

C. E. FULTON,

H. E. PEARSE,

G. C. WILSON,

Committee.

MINUTES OF THE MEETING OF THE COMMITTEE ON PUBLIC HEALTH AND LEGISLATION, HELD AT NEVADA, OCTOBER 3, 1907.

Meeting called by the chairman of the Committee; those present: Dr. W. S. Allee, Olean; Dr. C. E. Fulton, Springfield; Dr. G. C. Wilson, Nevada; Dr. H. E. Pearse, Kansas City; Dr. A. W. McAlester, Jr., Kansas City. Dr. DeVilbiss, at the request of the committee, attended the meeting and aided the committee in formulating its work.

Dr. Ruby, of the State Board of Dental Examiners was also present and spoke on the subject of "Corporations Practicing Medicine and Dentistry." Dr. Ruby advocated a law prohibiting cor-

porations from practicing medicine and dentistry, holding that authority to practice both professions should come under the jurisdiction of their respective boards and not from a charter from the Secretary of State. Dr. McAlester called attention to a decision of Justice Marshall that corporations could not practice medicine and surgery, a license from the State Board of Health being necessary therefor.

The committee instructed the secretary to communicate with Justice Marshall in regard to this point and report at the next meeting.

Dr. Pearse spoke of the excellent work done by the committee during the past year, and paid a tribute to the work of Dr. DeVilbiss and Dr. Lutz for their assistance to the committee during the last session of the Legislature; he further spoke of the excellent work now being done by the St. Louis Medical Society and the Jackson County Medical Society in ridding their respective cities of illegal practitioners.

It was ordered by the committee that the secretary be instructed to get recommendations from the attorneys of Jackson County Medical Society and from the attorney of the St. Louis Medical Society as to the changes necessary in the court review clause of the present act, that in case of revocation of license to practice a speedy trial may be obtained, and the decision of the State Board of Health obtain until reviewed by the courts.

After considering several measures that were presented, the Committee decided to take up the following measures and to present them to the County Societies, and to the State Association at its next meeting at Springfield, that all may have an opportunity to discuss the recommendations and determine what is best. Accordingly, the secretary was instructed to submit to the County Societies the following points for discussion at their meetings, with a request that they communicate to him their views, to be presented to the committee so they may be better able to carry out the wishes of the entire profession and formulate an acceptable report for the next annual meeting:

1. The modification of the appeal clause as mentioned above.
2. An act to prohibit corporations from practising medicine and dentistry.
3. The establishment of the State Board of Health on a permanent basis as a police board with ample funds and laboratories to carry out all investigations and supervision of the public health, to enforce the Pure Food and Drug Law, care for the water supply of the state and supervise all matters of quarantine, to promulgate and enforce regulations for the collection and registration of the vital statistics, quarantine regulations and all matters within the province of police power. The committee realizes that the public outside of the larger cities has now no protection from epidemics, adulterated foods, contamination of water supply, etc. It should be the office of the State Board of Health to enforce the provisions of the act relative to these. The Board of Health to license on the recommendation of the Exam-

ining Board and to have the power to revoke license as now provided by law. The examination of candidates to practice medicine, which is an academic matter, to be done by a special Board of Examiners in conformance with the plan of other states.

4. That the statute of limitation under which a suit for malpractice can be instituted be limited to one or two years. (It is five under the present law.)

The secretary was instructed to take up these points with the President of the State Board of Health; and to take up the advisability of establishing a uniform law for each state with the Committee on Medical Legislation of the American Medical Association and ask that committee to draft such a law; the purpose being for nation wide reciprocity.

A. W. McALESTER, JR., M. D., Secretary.

Editor Journal Missouri State Medical Association:

At the recent Annual Meeting of the American Pharmaceutical Association the undersigned was directed to send you a copy of the following resolutions:

WHEREAS: The American Medical Association, the American Pharmaceutical Association and the National Association of Retail Druggists together with many State and local organizations and journals in both professions have been for some years endeavoring to bring about a return to the practice of medicine based on the Pharmacopoeia, and

WHEREAS: The medical colleges are represented on the Committee of Revision of the U. S. Pharmacopoeia, and

WHEREAS: It is manifest to the thoughtful men both in medicine and pharmacy that a very large number of medical men might be better informed regarding the Pharmacopoeia as a book of reference and standards. Be it therefore

Resolved: That it is the sense of the American Pharmaceutical Association in convention assembled, that a great advance in the ethical practice of medicine and pharmacy will be made when the medical colleges make the Pharmacopoeia a prescribed text-book or book of reference and require a familiarity with it in their examinations.

Resolved: That we request the governing authorities of all medical colleges in the United States to put into force such a ruling in their respective institutions as will insure in future classes a well grounded knowledge of materia medica and Pharmacognosy, as set forth in the Pharmacopoeia.

Resolved: That the General Secretary be directed to transmit a copy of these resolutions to each medical college in the United States and to the medical and pharmaceutical press.

Yours very truly,
CHAS. CASPARI, JR., General Secretary.

COUNTY SOCIETY NOTES

ATCHISON COUNTY MEDICAL SOCIETY.

The Atchison County Medical Society met at Fairfax, on October 8th.

Dr. J. A. Hunter read a paper on "Anesthetics and Anaesthesia", and led in the discussion of these subjects. The other members participated in the discussion and many useful and interesting facts were presented.

The Society also discussed new remedies. This feature of the meeting was also of great interest, and, in short, the meeting was regarded as one of the best ever held by the Society.

Those present were: Dr. W. B. Lott, Westboro; Dr. A. McMichael, Rockport; Dr. J. A. Postlewait, Tarkio; Dr. J. S. D. Abbott, Dotham; Dr. E. P. Taylor and Drs. J. A. and O. A. Hunter, Fairfax.

Officers for the ensuing year were elected as follows: Dr. E. A. Lewis, president; Dr. C. M. Waugh, vice-president; Dr. A. McMichael, secretary; Dr. J. A. Hunter, treasurer.—AUSTIN McMICHAEL, M. D., Secretary.

BENTON COUNTY MEDICAL SOCIETY.

The Benton County Medical Society met in annual session at Warsaw, October 22nd, with the following members present: Drs. S. A. Davis, R. L. Pomeroy, H. G. Savage, Warsaw; M. Dillon, Fairfield; A. C. Curl, Cross Timbers; N. A. Schwald and M. L. Sands, Cole Camp; E. L. Rhodes and W. G. Jones, Lincoln.

Officers for the ensuing year were elected as follows: President, E. L. Rhodes; Vice-President, A. C. Curl; Secretary-treasurer, W. G. Jones; Delegate, N. A. Schwald.

Dr. M. L. Sands read a very instructive paper on "Physiology: The Basis of Diagnosis and Treatment."

Dr. R. L. Pomeroy read an interesting paper on "Massage: Its Use and Abuse."

Both papers were highly appreciated and thoroughly discussed by each one present.

Society adjourned to meet in Warsaw on the 2nd Tuesday in January.—W. G. JONES, M. D., Secretary.

THE CAPE GIRARDEAU MEDICAL SOCIETY.

The Cape Girardeau County Medical Society held its regular monthly meeting at Cape Girardeau, October 4th.

The Insurance Committee made its report which was adopted unanimously. It was shown that most of the insurance companies are

coming to the minimum fee of \$5.00. It was also shown that the companies paying the largest dividends to the policy holders were the \$5.00 companies. This included the oldest companies in existence.

The By-Laws were amended to conform to the wishes of the American Medical Association by collecting dues early so that the Secretary can make his annual report and the Association know who are members.

The program for the evening, consisted of a symposium on

NEPHRITIS.

Etiology and Symptoms.....Dr. Rosenthal
 Morbid AnatomyDr. Porterfield
 Clinical Microscopical and Differential Diagnosis.....Dr. Wilson
 TreatmentDr. Cunningham

After a profitable discussion of the papers the Society adjourned.
 —E. H. G. WILSON, M. D., Secretary.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF SEPTEMBER 27.

The committee on "Open Session Meeting" reported everything in readiness for the meeting on October 4.

On motion the Society decided that \$2.00 was a small enough fee to charge for a Fraternal Life Insurance Examination.

The subject for discussion was "Diseases of the Throat." Dr. Coffelt opened the discussion and gave an interesting description of and the treatment for acute tonsillitis. Drs. Farnsworth, Fortner and Terry took part in the discussion.

OPEN SESSION MEETING OF OCTOBER 4.

The Society met in the Auditorium of the High School. Prayer by Rev. Bacon. The Secretary read the program as follows:

Paper, "Public Hygiene," by Professor Carrington. Discussed by Dr. Nixon, Dr. Ralston, Prof. Roberts and Prof. Dodd.

Paper, "Public Sanitation," by Dr. Wm. Smith. Discussed by Dr. Terry, Dr. Fortner, Judge F. B. Williams, Judge Howell, T. R. Gibson and Hon. S. C. Hazeltine.

The President made a short introductory address and said the object of this meeting was to benefit the public and to awaken a greater interest in matters pertaining to the public health. The advancement of the medical profession in the line of preventive medicine has been very great in the last few years and it is becoming time that the educators and thinking people should know that in many instances, by proper sanitary and hygienic measures, much sickness and suffering can be avoided, and this Society is willing to assist in matters to improve the public health.

Professor Carrington said the schools develop children intellectu-

ally, morally and physically. We should have a system of physical inspection of the scholars and a department of hygiene in our Normal Schools; there should be a Superintendent to oversee the physical health and training of the child.

Dr. Nixon said the responsibility rests with the teachers and they should be educated in this line.

Dr. Ralston spoke of the unsanitary condition of the drinking water at some schools.

Professor Roberts was pleased to see the physicians interested in this line.

Professor Dodd said better sanitary conditions could not be had until there was more school money and the public realized the necessity for such things.

Dr. Wm. M. Smith read a carefully prepared paper on Public Sanitation. He spoke of regard for health in antiquity, in provisions of the Mosaic code; regard for sanitation goes with enlightenment. A resume of his remarks follows:

Sources of pollution exist in air, water and food. The air carries germs of disease, gases from sewage and infection from garbage and excreta; cesspools were strongly condemned and should not be allowed to exist. Dust irritates the passages in the nose and thro'at, and contains germs of disease.

Water may be unhealthful. Wells and springs in the city cannot be free from infection. Care should be exercised in locating cemeteries. Running water will not wholly purify itself. Filters are often faulty and imperfect.

Food has dangers that call for national law. Milk may convey tuberculosis, a disease more dangerous than diphtheria. Curable cases should be placed in proper places and incurables secluded.

In discussion, Dr. N. F. Terry spoke of the new science of bacteriology, and of the realm of ascertained facts it brings to us. Dr. B. F. Fortner, Superintendent of Frisco Hospital, spoke of the cost of ill health and of death, so far as care can prevent, estimating the amount for Springfield as little short of half a million dollars. Hon. F. B. Williams showed how completely the law provides for sanitation; Judge H. E. Howell declared sanitation one of the objects in view in the appointment of the Committee of One Hundred. Thomas R. Gibson would have agitation on the subject; S. A. Haseltine said the Ladies' Saturday Club began some years ago to shape sanitary legislation in an ordinance prohibiting expectoration on cars and on the streets.

MEETING OF OCTOBER 11.

The Committee on Library reported a revised set of Rules and Regulations and on motion this report was adopted.

Committee on Open Session Meeting reported that said meeting seemed to be very well received and had done much good and that the public would appreciate more of just such meetings.

Subject for discussion "Report of Cases." Dr. Camp reported a case of episcleritis which was discussed by Drs. Coffelt and Farnsworth.

Dr. Oldham reported a case of spasm in a young child which was followed by a seeming paralysis of one of the arms.

Dr. Smith reported a case of brow presentation which turned very quickly. Drs. Cox and Fulton discussed the case and all agreed that such cases were very uncommon.—J. L. ORMSBEE, M. D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY.

The Howard County Medical Society met at Fayette, on October 4th. Those present were, Drs. P. C. Smith, N. E. Smith, A. W. Moore, V. Q. Bonham, J. B. Fleet, C. P. Magee, C. H. Lee, A. B. Burgin, T. C. Richards, C. W. Watts; visitor, Dr. J. S. Preston, of Armstrong.

Dr. Fleet, of New Franklin, reported a mild case of typhoid fever. Drs. Richards and Fleet reported two obstetrical cases very peculiar in symptoms and results, in which good results followed strict antiseptic treatment. Dr. Watts suggested that septic results in the past were often the result of neglect and carelessness on the part of the accoucher as well as the nurse and ignorant friends.

Dr. Watts presented a case of epiglottiditis in a young man, the result of the use of cigarettes and alcoholics. The epiglottis was swollen to the thickness of the tongue. Treatment was by purgatives, alteratives and the use of bromides, iodine, adrenalin, etc. He said that unless the condition was relieved by the next meeting he intended to remove the upper section with the ecraseur. Such cases are rare and interesting, and dangerous as regards results.

Dr. C. H. Lee reported a case of gunshot wound of the head. A .32 caliber ball was shot into the mouth and lodged in the antrum or septum. Did not probe. Patient doing well. There is a difference of opinion among civil and military surgeons as to when we are justified in using the probe in these cases. Dr. Watts said he always went for the ball in soldiers during the war if there were no strong contraindications. Like pus, it did no harm outside but it might and probably would, even if encysted, inside.

The members of the Society for the Prevention of Tuberculosis were given until the November meeting to report organization to Dr. Porter.

A committee of five was appointed to regulate fees and report the names of those who never pay the doctor and get their practice free by changing doctors. Drs. Lee Bonham, P. C. Smith, Champion and Thompson composed the committee and will report at the next meeting.

Dr. A. W. Moore was given a letter of commendation to the New Mexico fraternity.—C. W. W., Reporter.

JACKSON COUNTY MEDICAL SOCIETY.

MEETING OF SEPTEMBER 24TH.

The regular weekly meeting was held in Employer's Association hall Tuesday evening September 24th. There were present thirty-five physicians.

Dr. Jno. W. McKee presented a case of macroglossia which was probably a lymphangioma. The young lady, 18 years of age, was perfectly healthy and in every other manner perfectly normal. The tongue was slightly enlarged at birth, but did not grow to any extent until she was three years old, when it protruded from the mouth and hung down to the extent of three inches, was one inch thick and about two and one-half inches wide. The lower jaw was undeveloped as a result of tongue pressure. The lower incisors were pushed out to a horizontal position; the tongue bore a heavy coating and was constantly drooling.

Dr. Herten, Robinson and others discussed the case with much interest. Aside from several interesting case reports the remainder of the evening was devoted to some very important business.

MEETING OF OCTOBER 8TH.

Dr. Ernest Robinson read a paper entitled "The Trypsin Treatment of Carcinoma." He had used this method of treatment on several cases, but without good results.

Dr. Brewster next read a paper entitled "The Bacterial Vaccine Treatment of Carcinoma." This treatment referred was the same as that carried out by Wright of London, in whose laboratory the doctor had spent several months as a student. This treatment consisted not in supplying the patient with any substance that would influence directly the neoplasm, but by administering vaccines of the different associate forms which thrive upon this pabulum of broken down tissue, especially micrococcus neoformis. It was possible to lessen the formation and hence absorption of toxin with a result that many times the patient obtained marked relief. In discussing this paper little was said as to the vaccine treatment, as no one present seemed to have had any personal experience with this method of treatment. Many however discussed the paper read by Dr. Robinson on the trypsin treatment, several having given it a fair trial and all quite agreed with the doctor that it was not a success.

In opening the discussion Dr. F. E. Wilhelm reported six cases of carcinoma and sarcoma in which he had given the treatment a fair test, absolutely with negative results. Others discussing this paper were: Drs. Hertzler, Pearse, Hal Foster, McCandless, and Trimble. All agreed that the essayist was correct in his statement when he pronounced the trypsin treatment of carcinoma a failure.

The meeting then passed into executive session and the following names voted upon and unanimously elected to membership: Dr. D.

A. Laurenzauna, Dr. Richard L. Sutton, Dr. Vernon Lee Andrews and Dr. H. E. Songer.

MEETING OF OCTOBER 15TH.

Meeting was held in Spauldings Auditorium. There were present sixty-five. This was a joint meeting with the Wyandotte County Medical Society of Kansas City, Kansas, Dr. T. C. Biddle, of the State Asylum, Topeka, Kansas, was also present.

The scientific program consisted of a paper read by Dr. S. Grover Burnett, entitled "The Disposition of Criminal Epileptics; Will Missouri Continue to Judicially Murder Them and Kansas to Sentence Them to Death: A Seven Year Study of Three Men Who Murdered Eleven People." The doctor's paper was extremely interesting and instructive and nothing short of a complete repetition would do it justice. Each epileptic had committed a murder at a time which to his mind without doubt remained a blank. Other epileptics reported had, during a similar condition of mind, wandered many miles and had done most peculiar things, and after becoming rational knew nothing of their actions during this period. His conclusions were that these patients should not be put to death or even be sent to the penitentiary, but should be confined in a suitable institution where treatment instead of punishment should be administered to them. He praised Kansas and other states in which the epileptic was no longer sentenced to death, but where a scientific treatment was administered instead; and criticised Missouri for not having taken the same step.

Dr. T. C. Biddle, Supt. Kansas State Asylum, Topeka, opened the discussion and quite agreed with the essayist in every respect. He mentioned the fact that epileptics are prone to moral degeneration and vicious crimes and should not be turned loose upon the public to commit crimes and beget offspring till at least many years of apparent cure had passed. Many others discussed the paper and especial interest was taken by our visiting friends from Wyandotte County.

After a few closing remarks by Dr. Burnett, Dr. A. H. Cordier arose and in behalf of the local members of the Mississippi Valley Medical Association presented the Jackson County Medical Society with an ivory gavel.

The chair then called the society into executive session.—E. L. STEWART, M. D., Secretary.

NODAWAY COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Nodaway County Medical Society was held at Maryville, October 8th. The following members were present: Drs. F. R. Anthony, L. E. Dean, E. L. Crowson, J. W. Dean, C. F. Howell, J. A. Larrahu, H. L. Sayler, H. C. Goodson, A. B. Allen.

The scientific program consisted of the following:

- (1) Malarial Fever, with report of cases. By Dr. L. E. Dean.

(2) A Plea For Fewer Drugs and More Sunlight and Fresh Air.
By Dr. E. L. Crowson.

(3) Ulcerative Keratitis. By Dr. H. C. Goodson.

These papers were freely discussed by the members present.

Dr. C. E. Frank, who recently located in Maryville, was elected to membership in the Society.

On the whole this was one of the best meetings that has been held since the Society has been organized.

At our next meeting, which will be held November 12th, we expect to take up for consideration, with a view to adoption, the permanent program for county medical societies, as printed in a recent edition of the Journal of the American Medical Association.—H. L. SAYLER, M. D., Secretary.

PLATTE COUNTY MEDICAL SOCIETY.

The Platte County Medical Society held its annual picnic meeting at Bean Lake, Wednesday, September 4. The following physicians and families were present:—Dr. Chastain of Weston, Dr. C. E. Benham, wife and children, Dr. G. D. Yokom and wife of Parkville, Dr. Spence Redman and children, Dr. G. C. Coffey and wife of Platte City.

The day was spent in regular picnic fashion and greatly enjoyed by all.

MEETING OF OCTOBER 2.

The Society met in Platte City with the following members present: Drs. Herndon and Hull of Camden Point, Drs. Redman, Clark, Naylor and Coffey of Platte City.

Anesthetics, local and general was the subject for discussion. Dr. Clark in opening the discussion said that he preferred ether to chloroform on account of the bad effect chloroform had on the heart, which bad effect he believed occurred in the first few minutes of the beginning of anesthesia.

The subject was very freely discussed by all present and many points of interest and instruction were brought out.—G. C. COFFEY, M. D., Reporter.

RAY COUNTY MEDICAL SOCIETY.

The Ray County Medical Society held a very interesting and profitable meeting in Richmond, Wednesday, September 17.

The following members were present: E. H. Musson, Norborne; J. E. Ball, Millville; T. B. Cook, Rayville; C. B. Shatwell, R. L. Hamilton, J. W. Smith, Robt. Sevier and L. D. Greene, Richmond; and Dr. H. S. Major, Hardin.

Dr. Cook read an excellent paper on "Typhoid Fever" which was ably and thoroughly discussed by all present.

A good program has been prepared for the next meeting which will be held in Richmond on Wednesday, November 20.—H. S. MAJOR, M. D., Secretary.

SCOTT COUNTY MEDICAL SOCIETY.

The Scott County Medical Society met at Chaffee on October 9. Members present were: Drs. T. F. Frazer, T. R. Frazer, W. H. Wescoat, P. M. Malcolm, H. R. Lucas, W. S. Hutton, H. T. Blackledge, R. S. McCabe.

The Fee Bill was taken up, the discussion of which consumed the whole afternoon. A Fee Bill was compiled and recorded to await the approval of Society at the next meeting. The thanks of the Society were voted to Drs. McCabe and Lucas for the dinner at the hotel.

Society adjourned to meet at Edna (P. O. Fornfelt, Mo.) on the first Monday in January, 1908.—W. S. HUTTON, M. D., Secretary.

ST. JOSEPH-BUCHANAN COUNTY MEDICAL SOCIETY.

An open session was held on October 9th and resulted in arousing much interest in questions of public health and sanitation. Dr. P. I. Leonard said that the people should demand city meat inspection and the appointment of an official meat inspector.

Dr. O. G. Gleaves and Dr. F. S. Carpenter, among other members of the Society, made short talks supporting the movement to induce the city to appoint a meat inspector.

Dr. J. M. Bell read a paper entitled "Food Adulteration." In summarizing his remarks he said: "Adulteration of food stuffs should be abolished, first because it cheats the purchaser; second, because it impairs health, and third, because it jeopardizes life. The remedy for this is government and municipal inspection and public education by popular lectures and pamphlets."

City Chemist Quinliven said that milk of a standard quality should contain 3.25 per cent. butterfat, 8.75 per cent. of non-fatty solids, making a total of 12 per cent. fatty solids, and 88 per cent. water. Its specific gravity must be not more than 10.29. The real milk problem which we have to consider is not chiefly how a sufficient quantity of milk with the required percentage of fats and solids may be obtained, but how the inhabitants of the city shall be provided with milk which is sweet, clean and free from preservatives and other questionable substances and low in bacteria. The best method of securing milk low in bacteria and practically keeping it so, is cleanliness of the dairy and surroundings while milking, such as a clean barn for the herd, a clean place for milking and a careful and clean, healthy person to do the milking, and sterilized utensils. There may be found a great difference, however, in the milk from the time the dairyman gives it to the milk dealer to when it reaches the consumer. The dairyman may furnish the best kind of milk to the dealer, but the dealer at his own risk may water the milk or use preservatives.

Dr. Leonard said: "The agitation against the adulteration of food and drugs has a good prospect for the attainment of satisfactory

results. We have discovered that adulteration is far more widespread than even the alarmists have led us to believe. We have learned that perhaps we are more often robbed than harmed by adulterated products. But upon a goodly portion of our products could be painted the emblem of the cross bones and the skull—poison. These questions deserve the study of every medical man and every layman in the nation. The children must be rescued from the dangers of unhealthy milk. The children of today make the army of tomorrow's producers. Give them healthy food."

Dr. H. H. George, chief of the bureau of animal industry, read a paper entitled "Limitation of Federal Control in Meat Inspection." He said: "Operation under the meat inspection law of June 30, 1906, the United States department of agriculture, through the bureau of animal industry, undertakes to make an ante-mortem and post-mortem inspection of all animals and their carcasses which are slaughtered or are to be slaughtered in establishments whose products are expected to enter into interstate or foreign trade. In addition it assumes to supervise all processes in the preparation and handling of meat-food products in these establishments until they are ready for shipment. The meat inspection law provides for the making and enforcement of such rules and regulations as may be found necessary to enable the effectual conduct of the inspection and supervision. Important among the regulations which have been made are those which provide for the control and ultimate destruction as edible product of carcasses and parts which upon inspection have been found to be diseased, unsound, unwholesome or otherwise unfit for human food. There is also provision against the use of preservatives and coloring matters, except under specific conditions; against the use of adulterants and the mixture of meats from different species of animals, unless the label so states, and requiring the conduct of all operations under sanitary conditions. It then of necessity follows that there can be no federal control undertaken which has for its purpose the elimination of diseased animals or carcasses intended for human consumption, or of diseased or unsound meats found in the markets, so long as those products are offered for sale only within the state in which they are prepared. The situation becomes of local interest when it is remembered that, in the absence of state or municipal control, the meat consuming public is measurably at the mercy of those who, unmindful of the welfare of others, are willing to place upon the market meats known to be unfit for food. As long as public stockyards and private slaughtering places exist without state or municipal control, opportunity will exist for the purchase and slaughter of animals unfit for slaughter. As long as the moral standard is subordinated to the money standard, those opportunities will be improved and men will be found who, by the aid of condiments, deodorants and preservatives, will offer for sale meats in which putrefactive process has been obscured, or which bear the germs of loathsome disease."

THIRD DISTRICT MEDICAL SOCIETY.

(COUNTIES OF HARRISON, WORTH, GENTRY, DEKALB.)

The annual meeting of the Third District Medical Society will be held at Maysville on November 12th and 13th. All members in this district are earnestly requested to be present.

The excellent scientific program will prove exceedingly interesting and highly profitable. The following papers have been promised:

Placenta Previa	Dr. O. P. M. Mills
Diseases of Joints, Tubercular and Non-Tubercular.....	Dr. Geiger
Capillary Bronchitis	Dr. J. W. Conard
Autointoxication	Dr. J. N. Barger
Differential Diagnosis of Hysteria and Neurasthenia.....	Dr. W. F. Kuhn
Cystitis	Dr. Phipps
Gastrointestinal Inflammations	Dr. J. M. Bell
Treatment of the More Common Diseases of the Eye.....	Dr. Kenny
Fractures	Dr. C. H. Wallace
Osteo-Myelitis.....	Dr. O. B. Campbell
Pulmonary Hemorrhage.....	Dr. B. S. Stuart
Mitral Insufficiency.....	Dr. A. B. McGlothlin
Acute Croupous Pneumonia.....	Dr. Landis
Nervousness: Its Significance and Treatment.....	Dr. Jno. Punton

BOOK REVIEWS

A TREATISE ON FRACTURES AND DISLOCATIONS. By Lewis A. Stimson, B. A., M. D., Professor Surgery in Cornell University Medical College, New York. New (5th) edition, thoroughly revised. Octavo, 847 pages, with 352 engravings and 52 plates. Cloth, \$5.00, net; leather, \$6.00, net; half morocco, \$6.50, net. Lea Brothers & Co., Philadelphia and New York, 1907.

In this volume, which now has become classical, the author covers every known form of these lesions, many of which actually have been for the first time described in this work. This single volume affords complete and authoritative information in a large and important field of surgery with which every practitioner of necessity must be conversant.

PARAFFIN IN SURGERY. A critical and clinical study by Wm. H. Luckett, M. D. Attending Surgeon, Harlem Hospital, Surgeon to the Mt. Sinai Hospital Dispensary of New York and Frank I. Horne, M. D. Formerly Assistant Surgeon, Mt. Sinai Hospital Dispensary. 12 mo.; 38 Illustrations; 118 Pages. Surgery Publishing Co., 92 William Street, N. Y. City. Cloth \$2.00.

This book covers a special field in surgery of interest both to the surgeon and general practitioner. Full details are given as to the method of Preparing the Paraffin as well as the method and manner in which it should be injected. The book presents a wide field for the use of Paraffin. It is printed upon heavy coated book paper and attractively bound in the best quality of heavy red cloth, stamped in gold.

GOLDEN RULES OF SURGERY. Aphorisms, Observations and Reflections on the Science and Art of Surgery. Being a Guide for Surgeons and those who would become Surgeons. By Augustus Charles Bernays, A. M., M. D. (Hdlbg.), M. R. C. S. (Eng); Life Member of the German Society for Surgery of Berlin; Chief Surgeon, Lutheran Hospital. St. Louis: The C. V. Mosby Medical Book Co. 1906.

This is an interesting little book which considers the following subjects in chapters: The Education of a Surgeon; On Scientific Contributions to the Literature of Medicine and Surgery; Science and Surgery; On Ways and Means of Building up a Practice; About Fees; Off With the Cloak of Superstition; Some Golden Rules of Surgery; Away with Inflammation and the Confusion it has Caused; Reminiscences.

NON-SURGICAL DISEASES OF THE PROSTATE AND ADNEXA. By Geo. Whitfield Overall, A. B., M. D. Rowe Publishing Co. Chicago.

This work treats of a subject that has been much abused in surgical practice.

The use of electricity in the ways mentioned will be new to the majority of practitioners and the new instruments will be a welcome addition to the present armamentarium.

The author has not lucidly given his ideas of drugs to be used and the exact manner of using them though otherwise he has given us a painstaking treatise on this subject. The work is well illustrated.

E. E. H.

PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS, with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, M. D., LL. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia. Sixth Edition. Thoroughly Revised. (In Conformity with Latest Revised U. S. Pharmacopœia, 1905.) Royal Octavo, 1244 Pages. Extra Cloth. Price, \$5.00 net. Full Sheep. Price, \$6.00 net. F. A. Davis Company, Publishers, 1914 Cherry St., Philadelphia, Pa.

This revised edition of Shoemaker's work requires no special recommendation. The previous editions have been perfected, thus making the present one a standard text-book of this country on materia medica and therapeutics.

A TEXT-BOOK ON THE PRACTICE OF GYNECOLOGY. For Practitioners and Students. By W. Easterly Ashton, M. D., LL. D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. *Third Edition, Thoroughly Revised.* Octavo of 1096 pages, with 1057 original line drawings. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$6.50 net; Half Morocco, \$7.50 net.

In looking over this work we are impressed with the thoroughness of the author's description of each subject, and with his concise and condensed manner of expression. He gives special consideration to microscopic examination of the discharges from the genital tract.

He takes up the subject of Leukocytosis, also devotes one chapter to Saline Injections, Intravenous and Hypodermoclysis, which is of great importance to the practitioner of today.

The chapters devoted to the Inflammation of the Uterus and Ectopic Gestation especially impress us as being extremely interesting.

This work is one of the most up-to-date treatises on gynecology that we have ever had the pleasure of looking over.

T. J. BEATTIE.

PULMONARY TUBERCULOSIS FOR PRACTITIONERS. By Albert Francine, Instructor in Medicine to the University of Pennsylvania, examining physician White Haven Sanitarium, Member of Staff of the Henry Phipps Institute. J. B. Lippincott Co., Philadelphia.

This book is without doubt the most concise work on this subject. The chapter on diet is of especial value. The author emphasizes the fact that if a teaspoonful of food disturbs the patient, that teaspoonful is more than is necessary at that time. His advice to avoid the use of opium altogether and morphine only to quiet patients during or after a frank hemorrhage, if followed, will save trouble.

The chapter on prophylaxis is full of points which our Sanitary Commissions as well as physicians could follow and save time as they can be applied to any district with success.

R. W. HOLBROOK.

NOTES.

ST. NICHOLAS IN 1908.

St. Nicholas will have a unique serial feature, beginning in its November number, in the actual log, or daily record, of a "Bluejacket" on the cruiser *Olympia* of the United State Navy. "Three Years Behind the Guns," as this unusual true story is to be called, sets down, in a homesick lad's own words, the daily life and adventures of a clever boy who ran away to sea and enlisted on the *Olympia* in 1898, little dreaming that before his three years' enlistment was ended he would be on the commodore's ship in the Battle of Manila Bay.

The Craftsman, founded in 1901, and edited by Gustav Stickley, has taken foremost position as a magazine devoted solely to the encouragement of handicrafts in America. Its editor being the leading spirit in this direction, *The Craftsman* has had phenomenal success. The October number is the first of its seventh year, and the announcements made indicate that there are still greater things in store for the coming year for this splendid magazine. Space will not permit us to give details, but, if interested, just send for a sample copy. Address: The Craftsman, 29 West 34th St., New York City.

The fiction serial of *The Century* in 1908 will be a new historical novel by Dr. S. Weir Mitchell, to be entitled "The Red City." This new novel by Dr. Mitchell is a companion to his famous "Hugh Wynne." While the former was a story of the time of Washington the General, the new one is of the time of Washington the President.

AMERICAN MEDICAL ASSOCIATION.

Next Annual Meeting at Chicago, 1908.

President: JOSEPH D. BRYANT, New York City.

President Elect: HERBERT L. BURRELL, Boston.

Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Springfield, May 1908.

President: W. S. ALLEE, Olean.

Vice Presidents:

THOS. B. COOKE, Rayville; A. H. VANDIVERT, Bethany; CHAS. HOUGH, Jefferson City;

J. P. DUNIGAN, Holliday; O. F. PILE, Memphis.

Secretary: A. W. McALESTER, Jr., Kansas City.

Assistant Secretaries: PAUL Y. TUPPER, St. Louis; GAIL ALLEE, Lamar.

Treasurer: J. FRANKLIN WELCH, Salisbury.

Medical Section.

Chairman: T. F. LOCKWOOD, Butler.

Secretary: GAIL ALLEE, Lamar.

Surgical Section.

Chairman: H. E. PEARSE, Kansas City.

Secretary: P. Y. TUPPER, St. Louis.

ORATORS.

Oration on Medicine:

JOHN H. DUNCAN, St. Louis.

Oration on Surgery:

HERMAN E. PEARSE, Kansas City.

COMMITTEES:

Committee on Scientific Work.

H. E. Pearse, T. F. Lockwood, P. Y. Tupper, Gail Allee.

Publication Committee.

W. B. Dorsett, Chairman. M. B. Clopton, M. C. Shelton.

Committee on Public Policy and Legislation.

C. E. Fulton, Chairman; H. E. Pearse, Geo. W. Wilson.

Committee on Medical Education.

N. B. Carson, Chairman; C. M. Jackson, E. W. Schaffler.

Committee on Tuberculosis.

Wm. Porter, Chairman; W. M. Bayliss, J. B. Norman, M. P. Overholser, Tinsley Brown.

COUNCILLOR DISTRICTS AND COUNTIES IN EACH DISTRICT.*

F. J. LUTZ, Chairman.

E. J. GOODWIN, Secretary.

First District.—Councillor, C. L. Evans, Oregon. Counties: Holt, Atchison, Nodaway.

Second District.—Councillor, W. T. Elam, St. Joseph. Counties: Buchanan, Andrew.

Third District.—Councillor, G. W. Whitely, Albany. Counties: Harrison, Worth, Gentry, DeKalb.

Fourth District.—Councillor, C. R. Buren, Princeton. Counties: Grundy, Sullivan, Mercer, Putnam.

Fifth District.—Councillor, E. E. Parrish, Memphis. Counties: Clark, Scotland, Schuyler.

Sixth District.—Councillor, H. Jurgens, Edina. Counties: Adair, Knox, Lewis.

Seventh District.—Councillor, L. W. Dallas, Hunnewell. Counties: Shelby, Marion, Ralls.

Eighth District.—Councillor, W. B. Dorsett, St. Louis. Counties: Lincoln, St. Charles, St. Louis, Pike.

Ninth District.—Councillor, Woodson Moss, Columbia. Counties: Audrain, Boone, Howard, Callaway, Warren, *Montgomery*.

Tenth District.—Councillor, C. W. Reagan, Macon. Counties: Macon, Randolph, Monroe.

Eleventh District.—Councillor, J. D. Brummall, Salisbury. Counties: Chariton, Carroll, Livingston, Linn.

Twelfth District.—Councillor, E. H. Miller, Liberty. Counties: Platte, Clay, Ray, Clinton, Caldwell, Daviess.

Thirteenth District.—Councillor, N. P. Wood, Independence. County: Jackson.

Fourteenth District.—Councillor, C. T. Ryland, Lexington. Counties: Lafayette, Saline, Cooper.

Fifteenth District.—Councillor, M. P. Overholser, Harrisonville. Counties: Cass, Johnson.

Sixteenth District.—Councillor, J. R. Buchanan, Nevada. Counties: Bates, Vernon, Barton.

Seventeenth District.—Councillor, R. D. Haire, Clinton. Counties: Pettis, Henry, Benton, St. Clair, *Hickory*.

Eighteenth District.—Councillor, Frank DeVilbiss, Eugene. Counties: Miller, Moniteau, Morgan, Camden.

Nineteenth District.—Councillor, G. Ettmueller, Jefferson City. Counties: Cole, Osage, Maries, Gasconade.

Twentieth District.—Councillor, F. J. Lutz, St. Louis. Counties: Franklin, St. Louis City.

Twenty-first District.—Councillor, B. M. Hypes, St. Louis. Counties: Jefferson, Ste. Genevieve, Perry.

Twenty-second District.—Councillor, J. D. Porterfield, Jr., Cape Girardeau. Counties: Scott, Madison, Cape Girardeau, Mississippi, *Bollinger*.

Twenty-third District.—Councillor, D. R. Corbin, Bloomfield. Counties: Stoddard, Dunklin, Pemiscot, New Madrid.

Twenty-fourth District.—Councillor, J. J. Norwine, Poplar Bluff. Counties: Wayne, Butler, Ripley, Carter.

Twenty-fifth District.—Councillor, F. L. Keith, Flat River. Counties: Washington, Reynolds, Iron, St. Francois.

Twenty-sixth District.—Councillor, R. L. Johnson, Rolla. Counties: Crawford, Phelps, Pulaskee, Laclede, Dent, *Dallas*.

Twenty-seventh District.—Councillor, H. C. Shuttee, West Plains. Counties: Howell, Shannon, *Ozark, Oregon, Texas, Wright, Douglas*.

Twenty-eighth District.—Councillor, T. A. Coffelt, Springfield. Counties: Greene, Lawrence, Barry, Stone, Christian, Webster, Polk, *Taney*.

Twenty-ninth District.—Councillor, A. R. Snyder, Joplin. Counties: McDonald, Newton, Jasper, Cedar, *Dade*.

*Counties in *Italics* are not organized.

County Societies in Affiliation with the State Medical Association

County.	President	Address of President.	Secretary	Address of Secy.
Adair.....	E. C. Callison.....	Kirksville.....	E. C. Grim.....	Kirksville.....
Andrew.....	E. C. Bennett.....	Rockport.....	C. O. Jeffries.....	Savannah.....
Atchison.....	E. A. Lewis.....	Rockport.....	A. McMichael.....	Rockport.....
Audrain.....	C. A. Rothwell.....	Mexico.....	E. S. Cave.....	Mexico.....
Barry.....	Wm. M. West.....	Monett.....	D. L. Mitchell.....	Cassville.....
Barton.....	J. T. Warren.....	Lamar.....	G. D. Allee.....	Lamar.....
Bates.....	U. G. Compton.....	Pleasant Gap.....	E. N. Chastain.....	Rich Hill.....
Benton.....	E. L. Rhodes.....	Lincoln.....	W. G. Jones.....	Lincoln.....
Boone.....	I. E. Thornton.....	Columbia.....	W. A. Norris.....	Columbia.....
Buchanan.....	O. G. Gleaves.....	St. Joseph.....	Chas. W. Fassett.....	St. Joseph.....
Butler.....	C. F. Green.....	Poplar Bluff.....	A. R. Rowe.....	Poplar Bluff.....
Caldwell.....	W. T. Lindley.....	Hamilton.....	Tinsley Brown.....	Hamilton.....
Callaway.....	G. F. Roots.....	Tebbetts.....	I. F. Harrison.....	Fulton.....
Camden.....	G. M. Moore.....	Linn Creek.....	G. T. Myers.....	Macks Creek.....
Cape Girardeau.....	G. W. Vinyard.....	Jackson.....	E. H. G. Wilson.....	Cape Girardeau.....
Carroll.....	W. C. Baird.....	Bogard.....	R. F. Cook.....	Carrollton.....
Carter-Shannon.....	Wm. Fulton.....	Winona.....	J. A. Chilton.....	Van Buren.....
Cass.....	H. A. Brierly.....	Peculiar.....	W. F. Chaffin.....	Raymore.....
Cedar.....	Kimball Hill.....	El Dorado Springs.....	J. W. Dawson.....	El Dorado Springs.....
Chariton.....	Oliver McEwen.....	Shannondale.....	C. A. Jennings.....	Salisbury.....
Christian.....	J. C. Young.....	Ozark.....	J. A. Roberson.....	Ozark.....
Clark.....	J. W. Bridges.....	Kahoka.....	F. B. Hiller.....	Kahoka.....
Clay.....	L. I. Jones.....	Linden.....	F. H. Matthews.....	Liberty.....
Clinton.....	John Sturgis.....	Perrin.....	E. A. Colley.....	Plattsburg.....
Cole.....	C. P. Hough.....	Jefferson City.....	S. V. Bedford.....	Jefferson City.....
Cooper.....	F. R. Smiley.....	Boonville.....	J. R. Lionberger.....	Boonville.....
Crawford.....	W. A. Metcalf.....	Steelville.....	A. H. Horn.....	Steelville.....
Daviess.....	W. L. Brosius.....	Gallatin.....	M. A. Smith.....	Gallatin.....
DeKalb.....	H. P. Yeater.....	Maysville.....	A. Evans.....	Amity.....
Dent.....	A. F. McMurtrey.....	Salem.....	J. C. Welch.....	Salem.....
Dunklin.....	N. F. Kelley.....	Kennett.....	G. L. Johnson.....	Kennett.....
Franklin.....	H. A. Booth.....	Pacific.....	A. C. Brown.....	Moselle.....
Gasconade-Marie				
Osage.....	J. J. Ferrell.....	Owensville.....	I. W. Nieweg.....	Lois.....
Gentry.....	G. W. Whiteley.....	Albany.....	J. N. Conrad.....	Albany.....
Greene.....	J. R. Boyd.....	Springfield.....	J. L. Ormsbee.....	Springfield.....
Grundy.....	N. E. Sutton.....	Trenton.....	D. W. Coon.....	Trenton.....
Harrison.....	C. A. Mitchell.....	Blythedale.....	F. A. Broyles.....	Bethany.....
Henry.....	B. B. Barr.....	Clinton.....	F. M. Douglass.....	Clinton.....
Holt.....	C. L. Evans.....	Oregon.....	J. F. Chandler.....	Forest City.....
Howard.....	N. E. Smith.....	Fayette.....	C. W. Watts.....	Fayette.....
Howell.....	H. C. Shutee.....	West Plains.....	A. H. Thornburgh.....	West Plains.....
Iron.....	R. W. Gay.....	Ironton.....	Ira A. Marshall.....	Ironton.....
Jackson.....	O. H. Dove.....	Kansas City.....	E. L. Stewart.....	Kansas City.....
Jasper.....	M. C. Shelton.....	Joplin.....	R. M. James.....	Joplin.....
Jefferson.....	J. W. Pickel.....	Crystal City.....	R. E. Donnell.....	DeSoto.....
Johnson.....	L. J. Schofield.....	Warrensburg.....	E. H. Gilbert.....	Warrensburg.....
Knox.....	L. S. Brown.....	Edina.....	Henry I. Jurgen.....	Edina.....
Laclede.....	J. A. McComb.....	Lebanon.....	J. A. Pinckard.....	Lebanon.....
Lafayette.....	P. S. Fulkerson.....	Lexington.....	C. T. Ryland.....	Lexington.....
Lawrence-Stone	F. S. Stevenson.....	Aurora.....	C. A. Moore.....	Aurora.....
Lewis.....	J. C. Brown.....	Lewistown.....	Paul F. Cole.....	Steffenville.....
Lincoln.....	S. R. McKay.....	Troy.....	Wm. P. Smith.....	Troy.....
Linn.....	J. W. Mason.....	Brookfield.....	Foster Burke.....	Laclede.....
Livingston.....	L. E. Tracy.....	Chillicothe.....	W. M. Girdner.....	Chillicothe.....
McDonald.....	E. F. Doty.....	Anderson.....	M. L. Sellers.....	Anderson.....
Macon.....	W. H. Miller.....	Macon.....	C. W. Reagan.....	Macon.....
Madison.....	C. A. Anthony.....	Fredericktown.....	S. C. Slaughter.....	Fredericktown.....
Marion.....	Richard Schmidt.....	Hannibal.....	H. L. Banks.....	Hannibal.....
Mercer.....	H. P. Chesmore.....	Princeton.....	C. R. Buren.....	Princeton.....
Miller.....	W. A. Von Grep.....	Iberia.....	W. L. Allee.....	Eldon.....
Mississippi.....	H. L. Reid.....	Charleston.....	R. K. Ogilvie.....	Charleston.....
Moniteau.....	S. H. Redmon.....	Tipton.....	W. R. Patterson.....	Tipton.....
Monroe.....	S. M. Brown.....	Monroe City.....	M. C. McMurry.....	Paris.....
Morgan.....	P. G. Woods.....	Versailles.....	H. N. Lutman.....	Versailles.....
New Madrid.....	Welton O'Bannon.....	New Madrid.....	C. W. Watson.....	New Madrid.....
Newton.....	R. L. Will.....	Neosho.....	Horace Bowers.....	Neosho.....
Nodaway.....	F. R. Anthony.....	Maryville.....	H. L. Saylor.....	Elmo.....
Pemiscot.....	J. G. Luten.....	Caruthersville.....	John Johnson.....	Hayti.....
Perry.....	T. M. Hudson.....	Perryville.....	F. M. Vessells.....	Perryville.....
Pettis.....	S. G. Kelly.....	Sedalia.....	Guy Titsworth.....	Sedalia.....
Phelps.....	W. H. Bruer.....	St. James.....	S. L. Baysinger.....	Rolla.....
Pike.....	J. W. Dreyfus.....	Louisiana.....	R. G. Hereford.....	Louisiana.....
Platte.....	Spence Redman.....	Platte City.....	G. C. Coffey.....	Platte City.....
Polk.....	J. E. Loafman.....	Bolivar.....	A. P. Mitchell.....	Bolivar.....
Pulaski.....	W. L. Ragan.....	Richland.....	G. W. Orrick.....	Crocker.....
Putnam.....	C. H. Carryer.....	Hartford.....	T. A. Townsend.....	Unionville.....
Ralls.....	Fred Walter.....	Perry.....	T. J. Downing.....	New London.....
Randolph.....	G. O. Cuppaide.....	Moberly.....	W. M. Dickerson.....	Renick.....
Ray.....	E. H. Musson.....	Norborne.....	H. S. Major.....	Hardin.....
Reynolds.....	J. M. Lowrey.....	Centerville.....	T. W. Chilton.....	Corridon.....
Ripley.....	S. A. Proctor.....	Doniphan.....	J. F. Redwine.....	Doniphan.....
Saline.....	D. C. Gore.....	Marshall.....	D. F. Bell.....	Marshall.....
St. Charles.....	J. R. Mudd.....	St. Charles.....	B. K. Stumberg.....	St. Charles.....
St. Clair.....	W. Cline.....	Appleton City.....	D. B. Williams.....	Osceola.....
St. Francois.....	J. L. Haw.....	Farmington.....	A. L. Evans.....	Bonne Terre.....
St. Genevieve.....	C. Moore.....	St. Marys.....	R. W. Lanning.....	St. Genevieve.....
St. Louis.....	J. C. Morfit.....	Humboldt Bldg.....	Davis Forster.....	5249 Raymond.....
St. Louis Co.....	R. E. Guibor.....	Maplewood.....	R. D. Moore.....	Central.....
Schuyler.....	I. T. Jones.....	Queen City.....	H. E. Gerwig.....	Downing.....
Scotland.....	W. E. H. Bondurant.....	Memphis.....	A. E. Platter.....	Memphis.....
Scott.....	T. F. Frazier.....	Commerce.....	W. S. Hutton.....	Fornefelt.....
Shannon.....	Frank Hyde.....	Eminence.....	J. A. Chilton.....	Van Buren.....
Shelby.....	J. D. Smith.....	Shelbina.....	A. M. Wood.....	Lentner.....
Stoddard.....	T. B. Wingo.....	Dexter.....	John Ashley.....	Bloomfield.....
Sullivan.....	J. C. Kessinger.....	Milan.....	I. S. Montgomery.....	Milan.....
Vernon.....	W. T. Bohannon.....	Nevada.....	T. McLemore.....	Nevada.....
Warren.....	W. J. Alexander.....	Marthasville.....	E. A. Fluesmeier.....	Wright City.....
Washington.....	J. A. Eaton.....	Belgrade.....	W. S. Smith.....	Belgrade.....
Wayne.....	I. P. Sebastain.....	Patterson.....	R. J. Owens.....	Mill Spring.....
Webster.....	H. Highfill.....	Marshfield.....	Wm. R. Beatie.....	Marshfield.....
Worth.....	Arch Long.....	Denver.....	J. K. Phipps.....	Grant City.....

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION

Volume IV

DECEMBER, 1907

Number 6

ORIGINAL ARTICLES

A PLEA FOR STATE PROVISION FOR NERVOUS INVALIDS.*

BY JOHN PUNTON, M. D., KANSAS CITY, MO.

The obligations of the physician are numerous. As guide and counsellor of the sick and afflicted as well as conservator of public health he is often called upon to grapple with problems which are well nigh unfathomable. It seems, however, beyond the comprehension of many persons that to every physician come tasks and responsibilities which are utterly beyond his powers, and that often he is asked to provide, protect, and even cure conditions, when palliation alone is impossible. This principle is eminently true when applied to nervous invalids and what to do for them forms one of the most perplexing medico-sociological problems of the age.

In every community their wail of woe and misery as well as cry for relief is heard, and the deplorable predicament in which many find themselves is indeed heartrending; hence, their distress should appeal not only to the family physician, but to every intelligent citizen. The grand and beneficent State of Missouri, with all her boundless wealth of resource, through the medium of her philanthropic and charitably inclined citizens, makes excellent provision for her indigent insane, deaf, dumb, blind and other dependents. Up to this time, however, no plea, much less provision, has been made for that large and growing class of nervous sufferers whose means are too scant to provide themselves with the necessary medical care and treatment their condition justly demands. It is therefore in behalf of these unfortunates that this appeal is made, hoping thereby to enlist your sympathy, co-operation and support and thus inaugurate a movement which will speedily secure the necessary funds from the State, county or other treasury, to furnish these neglected but worthy suffering citizens with adequate medical care, nursing and treatment. To convey to your minds and hearts and even consciences in a satisfactory manner the great necessity of this public benefaction is no easy task. Even to express my

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own feelings and the results of extensive practical experience with the sufferings and needs of this worthy but neglected class, seems impossible; yet the realization of the sad plight in which many of these unfortunates are placed at this time spurs me on to speak for them and their cause. In order to bring this matter to your attention in a practical, tangible manner these nervous invalids may be divided into three classes, viz.: 1st. The Sane. 2d. The Insane, and 3d. The Borderliners. In each of these classes, however, there are those who enjoy the blessing of sufficient wealth to amply provide for themselves such care and treatment their condition requires. But we must remember that this constitutes a very small proportion as by far the great majority of nervous invalids are poor, or at least unable to furnish themselves with adequate medical care and treatment and it is for these therefore that this plea is made.

In considering the three classes referred to, it is certain that the sane nervous invalids, represent to a large extent those individuals who suffer chiefly from the more intractable organic nervous diseases; and when destitute of means, by virtue of their crippled, bedridden or other serious condition, are now naturally referred to the large general city or other charitable hospitals for treatment and finally land in the poor house, where numbers of them can now be found. The State, however, is under obligation to care for its sick and needy and it could well afford to make ample provision for this class of nervous invalids. During infancy and youthhood, however, many such patients suffer from the more common functional nervous disorders and are usually treated at their homes by the family physician. Even this at times becomes burdensome and the State could relieve this load by furnishing them appropriate medical care and treatment.

The second or insane class, for obvious reasons, find their way to either the state or private insane hospitals, unless the already overcrowded conditions forces them to the jail or poor house, where many now spend much of their time. But it is the third class more especially, or the unfortunate borderliners, who, owing to their lack of proper facilities or limited finances, are unable to furnish themselves appropriate medical care, protection and treatment, that demands our greatest concern at the present time.

That we are living in an age of strenuous activity and remarkable development all will agree, and medical science, like her proteges, keeps well to the front in all forward movements. Those of you who have kept pace with modern medical progress will readily recognize the marvellous changes wrought in our conceptions of the nervous system and its diseases, within the past decade. Moreover, the principle results of such advance afford us the means of rendering finer discriminations in classification and diagnosis of diseased conditions, besides more potent methods and measures for their prevention, alleviation and even cure. In no departments are the effects of these changes

more conspicuous and striking than in those which pertain to clinical neurology and psychiatry. To the average medical practitioner, medical psychology, until within a very recent period, was a sealed book and even today its study is greatly neglected by many otherwise educated physicians. The tendency however, of modern medical progress is such as to blend the practical clinical relations of neurology and psychiatry and bring them into closer relationship with general medical practice.

Hence the close alliance which exists between nervous and mental disorders is gradually receiving the recognition it richly deserves and while these were formerly considered to be independent entities, they are now known to be for the most part identical. While emphasizing the close kinship which exists between nervous and mental diseases, modern medical science also enforces the recognition of another principle which to mind exceeds in interest and importance all others yet devised relative to their prevention and treatment. It is this, that in practical medicine there is an essential difference to be noted between unsoundness of mind and actual insanity. Hence, while all the insane are of unsound mind, yet there are very many persons who appeal to us for the relief of so-called *nervousness*, and who, by reason of some central cellular defect, are perhaps technically, medically speaking, of unsound mind, yet because of this cannot be regarded or treated as lunatics. This statement is in accord with the recent teaching and writing of the best authors on nervous and mental diseases; indeed the consensus of neurological and psychiatric opinion the world over to-day testifies to this belief, and it can easily be verified by anyone who has had practical clinical experience with this class of invalids. It is, however, this failure to recognize the practical difference between mental unsoundness and actual insanity that leads to much confusion and error in the diagnosis, prognosis and treatment of diseases of the nervous system.

Such persons, therefore, present in their clinical aspects certain psychic defects, which are usually considered harmless or of too trivial a character to cause any special alarm, much less medical or legal restraint. The known progressive, transitional nature, however, of such lesions, together with their baleful influence, and even at times vicious invasions upon the higher cerebral functions, render such mental unsoundness the very soil that constitutes the borderland of insanity, and from which spring and develop all forms and degrees of actual insanity. Those of you, therefore, who enjoy the privileges and experience of an extensive practice cannot fail to be impressed with the large number of persons who consult you concerning some nervous malady or unstable condition of the nervous system, which is commonly referred to by them as general nervousness.

Upon more careful examination, however, you will often observe, associated with this nervousness, mental perversions or lack of mental

poise, which, while not the equivalent of insanity, are at least expressive of some serious central cellular nervous defect, which clearly indicate their psychical origin. Hence, instead of a neurosis, we have in the vast majority of instances a neuro-psychosis to deal with. Associated, therefore, with their so-called nervousness, such persons clinically present all forms and degrees of psychopathic changes, and often by their strange, eccentric or unreasonable conduct, become the source of great anxiety and even irritation to their friends and relatives.

Moreover, their foolish extravagance and injurious, dissipated habits may at times invite untold hardships upon themselves and others; while their selfish, vacillating, impulsive, and even jealous conduct may not only render them difficult to control but also foster serious legal complications. Notwithstanding these various morbid characteristics, it is also not incompatible for such persons to appear intellectually bright and precocious; quick-witted, good conversationalists and apparently able to argue logically; and because of this, their alleged rationality, be considered by the general public as perfectly sane and responsible and in no sense mentally or physically ill.

To the educated, experienced physician, however, such persons present certain irrational, clinical, neuro-psychological features which at once stamp them as being more or less mentally unbalanced, or at least unsound in mind. Such persons, therefore, appeal to you and me for advice, care and treatment as well as proper protection, and while they present differing degrees of mental unsoundness, yet because of this, cannot be treated as ordinary lunatics. What to do for them however, presents at times the most formidable problem with which the family physician has to deal. A slang phrase can often be applied to such persons when we say that many of them "don't know where they are going but they are on their way;" viz., to the asylum, poor house, reform school or penitentiary. That the clinical field embraced by these borderliners is a very large and varied one is certain, beside presenting numerous clinical, pathological, sociological and medico-legal problems of the highest order.

Hence the diagnosis and scientific classification of these cases are necessarily beset with extreme difficulty. Long continued observation and vast clinical experience with such individuals would seem to justify the recognition of at least five common types or classes, as follows: 1st. The adolescent or youthful. 2d. The phrenasthenic or emotional class. 3d. The psychasthenic or exhausted. 4th. The prodigal or dissipator, and 5th. The impulsive or vicious class.

Time forbids enlargement upon the peculiar characteristics of each class as this has already been done in a former paper entitled, "The Borderland of Insanity." Only allusion will, therefore, be made to the various conditions which are embraced in each class, and for which State protection and medical care is greatly needed.

I. *The Adolescent or Youthful Class:* Under the first or adoles-

cent class are included those young persons who suffer primarily from the various neurotic affections common to youthhood and the pubescent period, such as epilepsy, chorea, hysteria, menstrual disorders, neuralgia, headache and more especially feeble-mindedness, hebephrenia, catalepsy, and the incipency of dementia precox. In this class are therefore to be found both boys and girls presenting every degree of nervous weakness and mental deficiency. Some children manifest their neuro-psychopathic weakness from birth, while others postpone it until they reach the period of puberty, when it is noticed that they begin to lose interest in their studies, home, parents and friends, or becomes careless and indifferent concerning their appearance or clothing; may even become morose, sullen and greatly depressed, give way to the habit of masturbation, or the reading of trashy novels and quack medical literature, and in this way get false notions concerning themselves and diseases. Occasionally, however, they present the opposite clinical picture and become hilarious, talkative, act foolishly, laugh loudly without adequate cause, turn against their parents, and become more or less incorrigible with a tendency to viciousness, and even to commit crime.

Hence the adolescent neuro-psychopath becomes a gradual failure, and what was once a lad of fine promise now becomes a bitter disappointment; while the precocious girl, once the idol of the parents for her quick intellectual resources, now appears a prattling child and a dismal failure in everything but the vegetative functions. Such young persons rarely reach the asylums but appeal to the family physician for relief, and what to do for them not only proves a vexatious question but at once propounds one of the most difficult medico-sociological problems of the age; while its present solution by the majority of the states of the Union, although apparently humane and beneficent, is not only of doubtful benefit to this class, but becomes at once their greatest enemy.

This is very apparent when we remember that as it now stands the only provision for such defective children is the State Feeble-minded Institution, or colonies into which are dumped the epileptic, the imbecile, all forms of dementia, and other undesirable chronic and incurable conditions, including even the dribbling idiot. Such an environment cannot fail to prove not only a serious handicap but absolutely harmful to those acute and more curable conditions referred to and whose proper care demands a hospital free from such depressing associations, but who by force of circumstances are compelled to accept the only means offered them which, in spite of its charitable aspect, cannot fail to prove to them an enemy in disguise.

II. *The Emotional or Phrenasthenic Class.* The second or emotional class include those persons whose feelings are not subject to proper control and whose mentality is characterized by emotional instability, weakness of will-power, and whose craving for sympathy is

more or less unrestrained. Such persons, therefore, present every degree of emotional weakness and there is usually present a marked diminution in the field of consciousness, which becomes circumscribed or limited in its associative functions, beside a deficient will-power which again leads to all degrees of loss of self-control. The chief pathological conditions represented in this class are the hysterias or the phre-nasthenias, the hypochondrias, and the morbid jealous and erotic states. This borderland is, therefore, chiefly inhabited by young and middle-aged women, although many men are found roaming at large in its wide boundaries. Many are subject to severe paroxysms of bad temper, become obstinate, stuporous, love-sick, morbidly jealous and erotic; may refuse to eat or drink, become rigid or have convulsions, cry and laugh without good cause and disown their best friends.

Associated with the morbid psychological manifestations are usually all kinds of stigmata or disturbances of the various mechanisms of the nervous system which give expression in either a loss, perversion, or exaltation of motion, sensation, reflex action, vaso motor, trophic and visceral disorders; all of which contribute to the emotional neuro-psychopathic clinical syndrome.

III. *The Exhausted or Psychasthenic Class:* Under the third or psychasthenic class are included those individuals who are commonly recognized as suffering from so-called neurasthenia or nervous prostration; but in addition we also find those who present undoubted evidence of incipient melancholia, paranoia, psychasthenia, hypochondria, the infectious or toxic psychoses which accompany or follow typhoid fever, pneumonia, lagrippe and other acute diseases, beside those persons who suffer from the various kinds of sexual perversions. All degrees of delirium, confusion and stupor, due largely to auto-infection or some other poison, are also common manifestations of the exhausted clinical syndrome, while suspicious fear of persecution and other apprehensions, although often capable of control and even removal by logical methods of reasoning, yet when neglected may become morbid, fixed ideas, thus constituting the incipient basis of the various toxic psychoses as well as the inception of true paranoia. Their psychological weakness also causes them to suffer from all kinds of doubts, fears and impulsions, while their vacillating moods and morbid suggestible nervous instability renders them easy prey for quacks and quackery, beside causing them to become the most willing victims to the knife of the unscrupulous surgeon. Hence many believe in operations, although after submitting to them they are rarely relieved of their alleged mental and physical suffering. Many are also found to be devoted worshipers of the golden calf and their insane love of the almighty dollar is often the responsible agent for their nervous bankruptcy. Unwholesome ambition to succeed combined with strains and dissipation of all kinds, complete a trio of etiological factors which are found associated with all forms of psychasthenia.

Such persons therefore represent the pernicious results and penalties accruing from the superstrenuous habits common to American business life, or those elements which lead men and woman to fret and worry unduly or cause them to live at high tension. As a class, they are exceedingly troublesome and difficult to manage, while their rational conversation often renders them free from all medical or legal restraint. And what to do for them at the present time taxes the resources of not only the friends, but family physician.

IV. *The Prodigal or Dissipating Class:* The fourth or prodigal class includes the dissipator, or those neuro-psychopaths who, by virtue of their mental unsoundness, more often stray from the paths of moral and physical rectitude and become the victims of all forms of temptation and licentiousness. Hence we find those who indulge in periodical sprees, or the inebriate, the reckless sporting libertines, the drug habitues, as well as those who engage in all forms of sexual excess, run venereal risks and are very liable to contract syphilis. From a clinical standpoint this class contributes many of those who suffer from inebriety or delirium tremens, and other forms of alcoholism; the incipient forms of general paresis, cerebral and other forms of nervous syphilis, besides those who suffer from the various drug addictions. This borderland, therefore, includes a very large and growing class of neuro-psychopaths, whose clinical features vary considerably and whose proper legal and medical control is at the present time exceedingly lax and unsatisfactory.

V. *The Impulsive or Vicious Class:* The fifth class includes those persons whose neuro-psychopathic tendencies lead them into all forms of impulsive and even vicious conduct. Hence they clinically present all kinds of morbid propensities, as that to steal, lie, cheat, drink, blaspheme, set on fire, and even commit suicide and homicide, thus presenting all degrees of incorrigibility and other vicious forms of behavior. Such persons are, therefore, known technically as kleptomaniacs, dipsomaniacs, pyromaniacs, nymphomaniacs, etc.

As a class they represent the more serious degrees of mental unsoundness; hence are nearer suffering from actual insanity than those belonging to the other classes. This is evidenced in their woeful lack of inhibitory control and wilful conduct, which, in my judgment, also often represents the hidden secret of an apparently sensational divorce suit or a glaring newspaper scandal, which ends in a mysterious suicide or strange homicide. Owing however, to varying intervals of rational conduct (the neuro-psychopathic weakness appearing oftentimes only in paroxysms of short duration) they are the most difficult to control of all the neuro-psychopaths, and because of their vicious and even criminal tendencies, require more absolute surveillance than any other class of borderliners. Their supposed reasoning ability, however, and apparent rationality cause few courts to willingly adjudge them insane,

hence they are allowed to roam at large until they commit some serious offense.

The inability, therefore, to legally enforce the medical principle of absolute isolation in such cases proves a serious stumbling to their prognosis, beside often proves a great hardship to their friends and relatives as well as the family physician.

Prevention and Treatment. All competent medical authority agree that for the prevention and treatment of so-called nervousness, mental unsoundness or borderland insanity, certain principles must necessarily be enforced which take cognizance more especially of the mental as well as the physical organization of the individual. These consists in the wise selection, judicious use and skillful application of drugs, hygienic and mechanical agents, such as massage, electricity, hydrotherapy, employment, amusements, exercises, fresh air and sunshine, walking, riding, dietetics, and above all, healthful suggestions or psychotherapeutics, which include all forms of moral and pedagogic measures, and occasionally surgery. In order, however, that these therapeutic agents may have their most beneficial effects upon those who suffer from all kinds of nervousness or borderland insanity it is necessary that they be used more especially in the incipient stages and in association with the following principles: 1st. The substitution of new for old environments. 2d. Isolation from home, friends and even neighbors. 3d. Institution of mild discipline or restraint; and, 4th. Removal of the cause, when possible, as well as peripheral and all other sources of irritation. Time forbids enlargement upon the scientific use of all these remedial agents; suffice it to say, that when used early and in suitable simultaneous combination they often produce results which are most astonishing. It is, however, in the lack of their early enforcement that so many failures occur.

Legal and Medical Reforms. Realizing, moreover, the extreme difficulty which at times besets the proper enforcement of these principles by the family physician, I cannot refrain from directing your attention to at least two factors, which, to my mind, play a very important role not only in the successful care and treatment of all forms of nervousness, but also in their prognosis and prevention. I allude first to the inadequacy of the common law to deal with such persons. And second to the need of better state provision being made in their behalf. In order to bring this before you in a practical manner I will ask:—As family physicians, how often have you been placed in the predicament of fully recognizing the need of providing mild restraint, or isolation, for the nervous psychopathic patient, yet not prepared to go into court and testify under oath to his or her insanity? As it now stands, the common law in most states makes no provision whatever for the proper medical care and protection of that vast multitude who are now, so to speak, living in the borderland of insanity. Hence the family physician is greatly handicapped in his efforts to apply the scientific

principles embodied in modern practical neuro-psychiatry. All competent medical authority, however, agree that the primary conditions of success in the treatment of such person is the substitution of new for old environments, coupled with mild restraint and discipline, with more or less isolation from home and friends; and, if these principles can be enforced in their incipient stage, the prospects of a speedy recovery are greatly enhanced. How, I ask, can the medical practitioner, under the present social and legal status, enforce such scientific principles in the average case?

The inability, however, to legally enforce the medical principle of isolation or mild restraint by the physician often proves a serious stumbling block to the prognosis of his neuro-psychopathic patient, beside works a great hardship to many who, by virtue of kinship or social ties, are brought more or less into their daily close personal relationship. Especially is this true of those found suffering from neurasthenia, hysteria, psychasthenia, epilepsy, feeble-mindedness, primary dementia, incipient forms of hebephrenia, melancholia, mania, paranoia, all forms of inebriety, drug habitues, and other dissipators, besides those who suffer from hereditary or acquired nervous defects, which lead them to become more or less incorrigible or display vicious and even criminal tendencies. Such persons, through lack of proper early legal and medical restraint, are more liable to contract syphilis, enter into some unfortunate marriage relation, or get into the clutches of criminal and civil law, and finally land in either the divorce court, the penitentiary, or the insane asylum and thus become a ward of the state possibly for the rest of their lives.

The legal necessity which now obtains, compelling the unfortunate sufferer from neurasthenia, psychasthenia, feeble-mindedness, melancholia, hebephrenia, or any other form of mental unsoundness, to be adjudged insane before receiving State or private medical care, often exacts a severe hardship upon many who deserve more lenient consideration. This is very apparent when I cite an example with which, no doubt, you are all familiar. As it now stands the only provision made for the so-called neurasthenic suffering from morbid fears or sexual misgivings, before he can receive State or private medical care, is to be adjudged insane, which he refuses to do. The same law obtains in all the rest of the unsound or borderland mental conditions, more especially, however, when applied to the poorer classes, and what to do today for those found suffering from incipient and simple forms of melancholia, neurasthenia, hysteria, psychasthenia, epilepsy, feeble-mindedness, the different forms of inebriety, drug addictions, and those nervous conditions associated with juvenile incorrigibility and even criminal tendencies, proves to be one of the most difficult problems which now confronts the medical practitioner.

Need of Public Sanitaria for Nervous Invalids. Unless the patient happens to be financially able to provide for himself private,

proper and appropriate care, he is usually doomed to neglect or incurability, for the large majority prefer to refuse State aid rather than conform to the legal necessity of being adjudged insane with all of its supposed disgrace and consequent stigma. Moreover, if treated at home by the family physician the chances of recovery are greatly lessened and at best is simply a make-shift. Hence the practical need of State and city sanitariums or psychopathic hospitals, built or arranged expressly for the reception and treatment of those persons found suffering from all forms of neuro-psychopathy, and where the rules of admission are destitute of all the present objections of legal commitment, is not only a pressing need but an absolute necessity. In the larger cities special arrangements should be made with the managers of general hospitals to admit such persons and provide them with proper and appropriate care at the expense of the city, county, or state. When this is done, many who now refuse State aid, will gladly accept it and thereby greatly increase the percentage of recoveries. Moreover, many such persons, as a result of their psychological disorder, now refuse to submit to any form of treatment, much less restraint, even where their condition absolutely demands it.

Such should therefore be compelled by law to conform to the dictates of modern medical teaching and experience, rather than be allowed to gradually merge into a known chronic incurable condition and later become a ward of the State for the rest of their lives. That the failure of enforcement of early appropriate treatment, due to inadequate legal provision, is to a large extent the responsible agent for many of those unfortunates who are now legally compelled to spend their lives in the State insane hospitals, is now generally conceded by all competent authorities. As an economical, as well as a humane measure, therefore, the various States of the Union could well afford to provide psychopathic or detention hospitals, half-way houses, if you please, between the asylum on the one hand and the home of the patient on the other, where the mentally unsound or the presumably curable nervous borderliners could receive such early appropriate medical care and treatment they richly deserve without being compelled to be adjudged insane, or even subject to the many other objectionable features which now beset their legal commitment. By such action the percentage of recoveries would be greatly increased while the pecuniary gain to the State in not having so many incurable insane to keep for the rest of their lives would more than provide sufficient funds to build and even maintain such hospitals. That this is no idle dream or foolish whim of my own is easily dispelled when I remind you that the State care of nervous invalids is now being advocated by the leading members of not only the medical profession but by statesmen, philanthropists, and indeed all those who are thoroughly informed upon the medico-sociological problems of the age. It also formed the theme of Dr. Stedman's Address last year before the American Neurological As-

sociation, who strongly advocated the establishment of State sanatoria for nervous invalids in the following language: "What such patients need (referring to nervous invalids) are separate public institutions or sanatoria, especially constructed and equipped where they can have the intelligent technical care that their disease necessitates and treatment for the weeks and months that such cases require before they can really improve. . . . For want of such provision these unfortunates who are often misjudged by the family had friends 'Go' as Lachr forcibly puts it, 'from doctor to doctor, polyclinic to polyclinic, healer to healer, in a vain search for what they need.'" The class of cases suitable for sanitarium treatment embraces nearly all the forms of nervous disease, except epilepsy. Besides neurasthenia, psychasthenia, hysteria, hypochondria, mild melancholia, migraine, chorea, paralysis agitans, tic, the sequela of apoplexy, cerebral paralysis in children, early dementia paralytica, early stages of tabes, myelitis, infantile paralysis, muscle atrophies, joint diseases, etc., all of which would be greatly benefitted by treatment in such a Sanitarium. "There are, to be sure, many appeals and plans afoot for charitable purposes and the process of awakening the attention and interest necessary to lay the foundation of such work would be a long and difficult one in spite of the general knowledge of the alarming increase of nervous disorders, but we have not yet even made the endeavor and it might well happen that such a charity would strongly appeal to the very class in which the effects of nervous overstrain are particularly prevalent, the hustling, never-resting business man whose prosperity has been bought at the expense perhaps of his nervous health." The adoption of public measures for the early treatment of nervous diseases by the separate care of such patients among the poorer class, either in wards or pavilions of general hospitals, or in special psychopathic hospitals, is an absolute genuine need and the physician of all others must be relied upon to educate those entrusted with power and authority to make such provision as to their special needs.

In a recent address in London even a layman in the form of Lord Rosebery, sees the necessity of putting forth more serious efforts in the prevention of neuro-psychopathy, or mild insanity, by calling attention to the enormous amounts of money now being spent on what he termed "The Tombs of the intellectually dead." He said vast sums were used annually for those from whom the nation can have no future hope, but who represent its waste and decay, and was, of all public investments, the most unproductive. He did not advocate the curtailment of such expenditures, but advised steps to arrest the increase of nervousness and insanity. He did, however, urge that if the public is willing to spend such vast sums on those whose intellects are dead, it should appropriate even greater amount in the alleviation of the condition of the sane poor, suffering from the various forms of nervousness and borderland insanity, who still may become of great use to the com-

munity. So great is the horror of insanity, and with such compassion are those afflicted with it regarded that even to discuss its treatment in a cold-blooded manner seems unfeeling. Nevertheless, Lord Rosebery's position is most logical.

The motives that prompt the excellent care given the insane should influence far greater expenditures in the eradication of the evils of tenement districts and the improvement of the environments of the helpless poor nervous invalid.

The great mistake of charity today is that too often it waits to sustain those whose usefulness has been destroyed rather than take measures to prevent poverty, crime, nervous diseases and kindred ills, thereby making valuable citizens. All competent authorities declare that all forms of neuro-psychopathy and even insanity in its incipency is most curable and extremely susceptible to prevention when subject to early appropriate treatment. As physicians and conservators of public health, therefore, it would seem that our highest duty demands that we at least attempt to have removed all obstacles that interfere with the judicious application of these important medical truisms, more especially to those found suffering from mental unsoundness or borderland insanity.

Independent, therefore, of more than 4,000 insane, beside 2,000 in her various penal institutions and 500 in her Federal and Confederate Homes, Missouri has still another large and rapidly growing army of dependents yet to provide for in the form of unfortunate nervous invalids. At first sight their claim may seem presumptuous, but those of us who have had actual practical experience with them and their suffering cannot only fully appreciate their dilemma but also vouch for their special need of State protection and medical care.

In Conclusion. Extensive practical experience would seem to show that bad heredity, inadequacy of law, poverty or privation, and all kinds of dissipation, including alcohol, syphilis and other poisons, form an etiological quartet, which are inseparably linked in some way or other with all the various manifestations of neuro-psychopathy and therefore constitute the greatest enemies of those who suffer from either the congenital or acquired forms of mental unsoundness. As these causes are subject to certain laws and restrictions besides largely voluntary in character or come within the power of individual choice to change or amend, they are therefore to a large extent preventable, or at least by proper surveillance can be rendered for the most part innocuous. Hence it is hoped that this address may be the means of stimulating a more earnest zeal and enthusiastic interest in the welfare of those unfortunates who, by virtue of some congenital or acquired condition, suffer from the various kinds of mental infirmity or borderland insanity.

DISCUSSION.

Dr. W. W. Graves, St. Louis: The plea made by Dr. Punton does

not need a second from me. But I should like to emphasize a point on which he did not lay so much stress and this is that the nervous individual has only in the recent past received the just recognition and attention by the profession that he deserves. The nervous individual has been looked upon for years as one for whom nothing could be done. He is dismissed as an individual who has imaginary ills. Neither his environment nor his mode of life is inquired into and he receives only drug treatment and drifts about from doctor to doctor and finally, perhaps, becomes an inmate of the poor house. There are no imaginary ills afflicting humanity. When an individual presents himself as ill there is always something responsible for his symptoms. If we will give these cases more attention than has been given them heretofore, we will always be able to accomplish something for them. That the border line cases can be properly treated goes without saying, but they must first be recognized. In order to get them well it is necessary in many cases that they have a change of environment. Isolation, education, restraint, everything we can do to help the individual to help himself is the foundation for the treatment and the first step is isolation and this is impossible in a general hospital. The nervous individual in a general hospital receives about the same attention that he does in his own home. There must not only be an earlier recognition of these individuals but there must be a change in the method of treatment now commonly employed, and this question of a psychopathic hospital for their treatment is one of the burning questions of the day.

Dr. C. B. Hardin, Kansas City: I want to ask Dr. Punton to answer this question in closing. He speaks of mental and nervous diseases. Now, strictly speaking from a psychological standpoint, I would like to know whether there is such a thing as a mental disease, whether it is not always the body? As a general practitioner I have had several of these border line cases where it was my unfortunate duty to try to decide whether the individual was sane or insane. It is one of the most difficult undertakings in all the field of our work. It is to me sometimes impossible. I have incurred the enmity of individuals for having committed them to institutions which they got out of in a year or two and then reflected on me for ever having sent them there. The average man whose conceptions are fairly good, has a distaste, a phobia in fact, for anything termed an asylum. Dr. Punton's proposed institution will obviate that difficulty.

Dr. D. S. Booth, St. Louis: I would like to emphasize only the great necessity for treatment of these nervous and neurasthenic individuals, especially those patients who themselves often refuse to take treatment when their own family and friends recognize that there is something seriously wrong. I have such a case under my care now, if I may call it that, for she has to be "dragged" to the office by her husband and when he is away she is without treatment. These are the cases that are so often in court and it is in these cases that it is so often

impossible to convince the jury that the individuals are insane. They may have certain delusions and can easily become the subjects of crime, and are very difficult to handle from the standpoint of the psychiatrist. Another thing is the accusation of "imaginary ills" that is often made to these patients. There is no such thing as an imaginary ill. Introspection is an evidence of neuron weakness. A person imagines he has a certain disease when he really has some other disease, as a person who has been exposed to smallpox thinks he has smallpox when in reality he has some other eruption, but he really has some symptom or condition which causes him to believe himself ill. If we can cause these people to take treatment early we can save them from years of institutional treatment.

Dr. Wm. L. Whittington, of Marshall: I only want to add a few words of endorsement to Dr. Punton's paper. I am sorry the paper had to be read so rapidly and that a portion of it had to be omitted. I would suggest that Dr. Punton mail a reprint of his paper to all the physicians, that they may study it more thoroughly.

At the Missouri Colony for Feeble Minded and Epileptic, at Marshall, where I am Superintendent, all kinds of patients are brought there without discrimination. At State Hospital No. 2, it is the same thing. This will not be remedied until it is remedied by law. The starting point is with the family physician, and as soon as the family physicians take sufficient interest in this matter, just that soon will a step forward be taken, but no sooner. Consequently I hope and trust that the profession, the family physicians, will not neglect this matter, and will pass their cases on to a specialist who will take a deep interest in the subject and study it thoroughly before the case is sent to a State institution. All our State institutions are crowded to their utmost capacity and there is a constant cry to cut down expenses; and the Legislature seems to want to cut down appropriations. It seems now to be a question of who can run these institutions the cheapest. But it should not be a question of cheapness. It is a vital question of how can best be checked this growth of mental defectiveness, insanity, epilepsy, feeble-mindedness, imbecility, etc., and that is the strong point of Dr. Punton's paper,—the question of invoking State aid. The crying necessity now is getting the family physicians interested and getting something done through legislation. The plan for the Missouri Colony at Marshall was agitated for at least five years before it was possible to get anything done for the feeble minded. We now have 450 inmates. We have about 250 applications that we can not take. The East is far ahead of us in this matter of institutions; there the family physicians are deeply concerned and the medical profession has taken hold with a strong hand and pushed the matter until they have secured advanced legislation along these lines.

Dr. Punton, in closing: I feel sure my paper cannot fail to appeal to every physician when he has time to study the true need of such an institution in this and in other states.

MALFORMATION OF THE RECTUM AND ANUS: REPORT OF CASE.*

BY W. H. COFFEY, M. D., KANSAS CITY, MO.

In presenting this case of malformation of the rectum and anus, I do it not because I have anything especially new to offer regarding the condition but the infrequency of those cases makes it necessary that we review them occasionally, "lest we forget." Yet with the full appreciation of the fact that but little attention is given by the obstetrician, or the general practitioner, to this part of the child's anatomy when it first arrives, I insist that they above all men should be alive to the importance of the question, for it is into their hands that are given the little human mites, so helpless and so hopeless unless the attending physician understands his business and makes a thorough examination of the frail bit of humanity entrusted to his care and skill. It is in the province of every man who labors with the mother at child-birth to have at some time during the ordinary practice of a life time, some of these rare cases with which he must deal. The most authentic statistics that I can gather give us about one in every four thousand births, but in their infrequency there is no justification for our inability to act, so far as the light of science goes.

I know it is the common every day things, the bread-winners, that demand our attention, and our most serious thoughts, and it is easy for the general practitioner to say, "we will leave that for the specialist to do;" but it is not the specialist who sees the unfortunate child when the work might be done which would save its life or rescue it from some hideous malformation and make its life more useful and more tolerable.

It would be an excellent rule to adopt, if you have not already done so, to examine for yourself (don't rely on the nurse or some old woman) every infant at whose birth you have assisted, if the meconium is not freely and easily voided within the first twenty hours. After the child's abdomen is distended the trouble has begun, and your work of art will not be so satisfactory. I speak of this at this length, because it is my firm conviction, having been a general practitioner for sixteen years in a rural district, where we depend very frequently on the report of some old woman, or the grandmother in charge of the infant; I say I believe it is possible that some children, if not many, have died from atresia ani, or tresia recti before being discovered.

The following case was referred to me by Dr. John Rose, of Argentine, Kansas. About the 1st of December, 1906, the child was brought to my clinic at the Kansas University by her mother, Mrs. C. The examination of the mother's history did not develop anything of

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

special interest; she is the mother of three children, two of them by her first husband, our little patient being the second child; the other two children were healthy in every respect. The mother was 19 years old when she gave birth to our patient. The father was a healthy man but dissipated and indulged to excess in liquor at the time his wife became pregnant with this child. The mother had no premonition; in fact, she said she did not know at that time that such a thing was possible. However, she gave the history of an aunt on her father's side who marked one of her children, by throwing herself into a fit of anger upon being so often requested by her little boy to wrap up his finger. "I wish you had no finger," she exclaimed at length, and when her baby came, that identical finger was missing. So much for the history of the mother.

The child was a healthy little girl of eight years; never had any serious illness; her mother had never told her of her condition, and she



Fig. 1. The misplaced anus. Nature had given the little girl a few constrictor fibers, which were transplanted to the normal site. The anterior wall of the lower part of the rectum has a greater convexity than is shown in the illustration.

herself had only a few days before coming to my office discovered that she was not like other little girls. She had very good control of her bowels never finding it necessary to wear a cloth even when troubled with diarrhea. Upon examination, the external genitalia were normal, but no signs of an anus; however, upon close inspection you could see that the skin at the normal sight of the anus was a little darker than the surrounding integument. The vagina was very much larger than in a normal child of that age, yet hardly admitting my finger. One and three-fourths inches up the vagina I found an opening into the bowels into which I could pass the tip of my little finger, upon which it somewhat tightened, showing some sphincter action.

A bent probe passed into the rectum through the false anus showed the rectum ending in a blind cul-de-sac about one hand a half inches from the forchette. I advised the mother to submit the child to a surgical operation. The child at this time began to be so nervous that it was impossible to proceed further with the examination, and I decided to defer it until a time when she might be placed under an anesthetic. The mother consented to the operation, and the child was taken to the General Hospital on Thursday, December 6, 1906.

The hospital report shows that on the first day calomel and soda tablets, one-fourth of a grain each, were given every hour until two and one-half grains were given, followed by saline on the second day; third day, morning of the operation, she was given a high enema with good results. Patient was taken to the operating room at 10:40 a. m. and put under chloroform anesthesia, and was returned to the ward at 12:55; in all, two hours and fifteen minutes under the anesthetic.



Fig. II. The perineal body is much larger in the subject than is shown in the illustration. The patient at this date (August 12th) has perfect control of bowels and is developing rapidly into strong girlhood.

Fully an hour of this time was taken up by the examination of Drs. Griffith and Block, and another physician present, and in my explaining the case to the students. With the valuable assistance of my colleague, Dr. Thrailkill, we proceeded to operate by first making an antero-posterior incision over the normal sight of the anus, and also a transverse incision not so deep as the former, only going through the skin; thus making a crucial incision, following up this first incision fully one and a half inches, very carefully dissecting our way until we came upon the bowel. It was then suggested that we immediately go into the bowel and anchor it down to our incision, with the opening already in the bowel which nature had formed and fasten it to the posterior wall of the vagina. I could not see how it would be possible for us to get slack enough in the bowel to bring it down so as to cover up

all the raw surface with mucous membrane, besides we would lose what constrictor fibres nature had already given her at the misplaced anus, and we would also have had (if we had been so fortunate as to establish an anus at the normal position) a recto-vaginal fistula to deal with. Having in mind the Amuscut operation, I had intended to modify it somewhat by dissecting loosely through the vagina, the misplaced anus, bringing it down and suturing it to my external incision, without incising the anterior perineum; but with small openings and with my large fingers to work with, I gave it up as a bad job and did what we thought was the next best thing, and which I believe after all is the best thing to do in every case. That is lay wide open everything with a free incision, the anterior perineum carrying the incision up the posterior wall of the vagina to the misplaced anus, which gave us all the room that was possible for us to get to do our dissection; thereby enabling us to avoid to a great degree traumatism, which counts for so much in this operation. It was an easy matter after making the incision through the perineum to loosen the gut from the posterior wall of the vagina, saving all the constrictor fibers nature had given her there, and transplant them down to the normal position, suturing loosely my transplanted anus to the first incision made, with some six or eight catgut sutures. Then I had to deal with a lacerated perineum; although somewhat exaggerated I immediately closed that up in the usual way. Taking a rubber tube about two inches long, wrapped with gauze, and over this some gutta-pursha tissue, I placed this in the rectum for the purpose of allowing the gas to escape, or any liquid stool, and to make pressure in case of any oozing. The child was dressed and put to bed, as has already been stated, having been under the anesthetic two hours and fifteen minutes.

During that time the anesthetist three times pronounced the child dying, and at two different times he thought it was necessary to give her a hypodermic of one-sixtieth of a grain of strychnine, which he did and at one time one-eighth of a grain of morphine. I mention this to show you under what difficulties we were laboring. The hospital chart shows that at 10:00 at night following the operation the temperature was 101 in the axilla, pulse 110; respiration 28; urine voided but amount not given. One ounce of milk was given which was retained. Was given one-eighth of a grain of codiene hypodermatically for the pain; repeated at 12:00 which was the last she had during her stay in the hospital. On the night of the first day following operation at 10:00 o'clock, temperature 98.8, pulse 102, respiration 26. Urinated twice, amount not recorded. On the evening of the second day at 4:00 o'clock, a liquid stool through the tube. Voided urine four times during the day; temperature 92.2; pulse 108; respiration 26. Third day temperature 99.4; pulse 80; respiration 24. Voided urine twice during that day. Fourth day, temperature 99.3, pulse 84, respiration 24.

On this day a grain of calomel was given, in quarter of grain doses

every hour. In the evening an enema was given through the tube and a movement of the bowels was reported, with which the tube came away. On the fifth day, I found the child's temperature 101°; pulse 100; respiration 28. I found at this time the child's bladder was very much distended. A catheter was passed and 28 ounces of urine drawn off. On the sixth day urinated twice, fifteen ounces each; this was a natural urination by the use of hot turpentine stoups over the abdomen. On this day I noticed a drowsiness for the first time. No bowel movement on this day and a dose of saline was ordered. The seventh day no bowel movement reported; another dose of saline ordered; reported urinating twenty-six ounces. Eighth day dose of saline; urinated, amount not recorded; no stool. Drowsiness continued. On Monday, the ninth day after the operation, I found a large mass in the region of the sigmoid. It felt as large as my wrist. At this time she was very drowsy, and entirely disinterested in her surroundings.

It was plain then that we had an autointoxication. I stayed with the little girl, and with the aid of one of those rather stiff rubber catheters I washed, and gouged with my fingers, breaking up the hard fecal matter as it came down to prevent it from tearing open the wound which had healed. It seemed at times as if she in her straining would tear everything wide open, but no such misfortune occurred, though we thoroughly destroyed our tumor, and we saw to it thereafter that there was no more accumulation of the urine nor of the fecal matter, by the use of proper remedies, such as salts, etc. Each day after the tube came away, during her stay in the hospital, the anus was gently stretched with our fingers, either by the attendant or myself.

We had no more trouble; the patient continued to recover her strength and was discharged from the hospital on January 5, 1907, with very good control of the bowels. So high an authority as Dr. Fisher, of the Post-Graduate School of New York, in his book, just published, on diseases of infancy and childhood, states that this operation has proven very unsatisfactory.

I heard from her some weeks afterward. She had been going to school and complained of pain in her left side. I advised the mother to take her out of school, that she might be out of doors and get all the exercise possible. She did so and the child improved rapidly. I heard nothing further from her until a few days before coming here. I visited her at her home in Armourdale, Kansas, and found her in good health and with perfect control of the bowels.

Regarding the classification of malformations of the rectum and anus, I believe that Papendorff gives the most practical one, which is as follows:

- 1st, Preternatural narrowing of the anus.
- 2nd, Complete occlusion of the anus.

3rd, No anus whatever, the rectum deficient to a greater or less extent ending in a cul-de-sac.

4th, Anus normal. Rectum occluded for a greater or less distance.

5th, Anus opening at some other than normal position.

6th, Rectum opening into the bladder, the urethra or the vagina, the normal anus usually being absent.

7th, Rectum and anus normal; the ureter, vagina or uterus opening preternaturally into the rectum.

8th, The rectum absent.

9th, Rectum and colon absent. In these cases there is sometimes an opening leading into the intestine at some other part of the surface of the body.

Regarding etiology, what can I say? The embryologist and the Otologist show us clearly just how the human embryo is developed. Step by step it passes through the same stages as the animal embryo. I wish I had time to go deeper into the subject of embryology, but that would require another paper. Suffice it to say that the embryologist has shown clearly how such cases as the one I have referred to can occur. In the first instance we know that the mesenteron or central portion of the alimentary canal is formed from the hypoblast and consist of a simple tube which ends at the anterior extremity of the embryo in a blind sac, while at the posterior extremity a similar cul-se-dac is formed.

This tube of hypoblast represents only what is to constitute the mucus membrane of the alimentary tract, the other coats of the intestine being subsequently formed by the hypoblastic portion becoming enveloped in a layer of mesoblast which differentiates into two portions, the outer forming the peritoneal covering, while the inner develops into the muscular and connective tissue elements of the intestinal wall. An invagination of epiblast at the anterior extremity of the embryo meets and communicates with the anterior portion of the mesenteron; this (which is called the stomodæum) constitutes the mouth; a similar depression of the epiblast at the posterior extremity (proctodæum) forms the anal orifice by communicating with the mesenteron. We can see that a failure of this epiblastic layer of the mesoblast to properly connect with the mesenteron will produce a malformation of anus and rectum.

We take this explanation to be authentic and scientific, but it does not tell us why these two membranes did not properly connect. As everything works from cause to effect there must be some explanation of this failure. The lack of proper nutrition arresting development, or irregular growth of the proctodæum or mesenteron, is thought to be largely responsible for these conditions, and I believe, with all seriousness, that future investigations will prove that interference with the embryo during the first weeks of pregnancy in an attempt at abortion

does also contribute largely to the etiology of these malformations, also strong drugs, such as ergot, quinine, etc., tight lacing, introducing a probe into the uterus during the delicately forming embryo—anything, in fact, that will cause an undue contraction of the uterus during the early weeks. The old ideas of maternal impressions—"seeing things"—should be discarded as belonging to the dark ages. In this enlightened age these hideous malformations should no longer be laid at the mother's door.

The Spartans were content to throw their malformed children into the sea, but it is a bright page in the history of surgery that it is no longer necessary, whatever the cause, to throw our deformed children into the sea, but on the contrary to know that by the beneficent aid of surgery they may become if not entirely normal, at least so far removed from their previous condition that life will be more tolerable and they may experience most of the joys and pleasures of those more happily born.

DISCUSSION.

Dr. Stauffer, of St. Louis: Those conditions are always of exceeding interest; the one the doctor describes today is perhaps the most common, as far as we are able to judge by statistics. Statistics in this condition, however, are not any more reliable than in many other cases. The opening of the rectum into the vagina has probably a less serious effect on the future health of the person than any other complication that we might find in malformation of the rectum, and while it always should be repaired—if possible to do so—the condition is not as deplorable as when you find the rectum opening into the bladder, or the ureters, or the male urethra. The only criticism (if you can call it a criticism) I could suggest in the management of the case is that he might have succeeded in keeping a cleaner field, and getting quicker results, by first doing a colostomy, and then getting the field perfectly clean, and the parts would have possibly been restored sooner, without the danger from infection. However, the final result justifies the means employed.

Dr. E. H. Thrailkill of Kansas City: I read a paper before this society in 1903, in which I said the obstetrician should never hand over the child to its mother until after he has examined the anus. I also reported a case of a child in whom there was a rectal stricture which caused convulsions. I dilated thoroughly and the convulsions ceased. Fortunately these congenital malformations occur rarely. The operation described by the essayist was the first I ever saw, and I want to say that the doctor did a nice operation and got good results. I saw the child a month ago; she was cheerful, happy, well-fed, and having no trouble whatsoever. A perfect union with perfect results. I was very glad indeed to assist the doctor in the operation.

Dr. Frank Hinchey of St. Louis: The only exception I have to take to the doctor's paper is in his etiology. He says that embryologists stop short or are too vague, when they say there is in a measure arrested development, and believes that any instrumentation, in the attempted production of abortion in the early days of pregnancy, might be responsible for malformations. I do not see how this is possible at all. I do not see how it is possible to interfere with the development of the embryo when you do not rupture the membranes, for when they are ruptured, death of the fetus follows. I do not see how any attempt at abortion can effect the development of the child. Patients will often say to us that they do not mind—after they have tried abortion and failed,—carrying the child if they can only be sure the child will be “all right.” If we can assure them that, inasmuch as the life of the embryo has not been destroyed and abortion immediately produced, there is no chance for any deformity to result, they are satisfied. I think the explanation of these deformities to be simply a reversion of type, where nature has stopped short at the cloacal stage, in the evolution of the embryo.

Dr. Coffey, in closing: I was very glad indeed to hear the doctor make the report about that child. I practiced sixteen years in the country, and I know that we very frequently left the grandmother, or some old woman, to look after the child, when it was our duty to examine the child and correct any unkindnesses of nature before too late. In regard to the remark of the doctor about the formation of membrane and this attempted abortion not having any effect, we must remember that at this time there are no membranes; there is no protection at the beginning of the formation of the embryo in the first few weeks of pregnancy.

224 Bryant Building.

ABOVE ALL, THE CLINICIAN.*

BY W. G. MOORE, M. D., ST. LOUIS, MO.

The subject of this paper was suggested by reading an address delivered by the distinguished English physician, Sir James Crichton Browne, at the opening of the medical department of the University of Leeds last year.

After contrasting the universities of Germany and his own country, England, praising the generosity of the German Government in the endowment of their schools and the splendid results following their original research methods, Dr. Browne makes this significant and timely observation: "Great have been the contributions of Germany to medicine and surgery, but those of England have been greater still; and while at this moment the young medical men she is sending forth from her universities have perhaps theoretical attainments higher than those who learn at our medical schools, they are not better practically prepared for their professional work. As a clinician our young English practitioner is, I am inclined to think, quite equal to, if not superior to, any continental compeer. After all, it is the competent clinician that is the main thing.

"The researches must always be comparatively few in number. We cannot all be Laverans or Pasteurs or Koehs, but there is not one of you who may not, by profiting by the instructions here given, become the sure messenger of hope and healing in many a stricken home, and by your skill and science assuage the sufferings of your fellow men." These are noble words, nobly spoken.

A clinician is a bedside physician. One who is called upon to minister to the afflicted. He is the composite of the full and accepted meaning of physician in its broadest and best sense and those who do not measure up to his standard of requirements are at best but assistants to the real physicians whatever may be their attainments in the other branches of medical science.

No one more admires or values the advancement of recent years in pathology, bacteriology and allied sciences than myself, but one needs only to remember the brilliant clinical achievements of such men as Trousseau, Laennec, Sir Thomas Watson, John Hunter, Snydenham, Niemeyer, and our own deathless galaxy of great men such as Benj. Rush, Physic, Gross, DaCosta, Sims, Battey, Flint, and the immortals McDowell and Beaumont, besides unnamed scores of their contemporaries equally entitled to fame, who blazed the paths our feet have trod, without the aid of the microscopes discovered worlds—through their tactful genius and intelligent understanding of the phenomena of disease as they found it at the bedside and not in the dead room.

*Oration delivered before the Medical Association of the Southwest, Hot Springs, Ark., October 8, 1907.

While it is true we cannot all be Laverans or Pasteurs, it is equally true all could not be Trousseaus or Laennees, Charcots or DaCostas, Hunters or Watsons,—but each of us may become the messengers of hope and healing in the stricken homes of our fellow men. How may this be accomplished at the present time? To my mind, it should be the burning question to those who are now laying the foundations of our medical schools whence come the doctors of present and future years.

Give the young men every facility possible for receiving the benefits of modern research, but bear in mind the small, the infinitely small, percentage who will have the opportunity if they possess the capacity to make it of practical value in their life's work, especially in this vast country of ours where so many have their field of work so remote from cities offering recourse to the opportunities they have. But there is one greater need than pathological and bacteriological laboratories for making the best and most useful physicians and that is the opportunity for the abundant, intelligent clinical study of disease in the hospitals of the land which are maintained by the taxation of the people, who are entitled to the best medical attention possible, to enable them to live and work most effectively. The medical graduate who has the advantage of an internship in a large public hospital and applies himself closely to the phases of disease, studies the *facies morbi*, the pulse in all its manifold variations, the tongue as the mirror of internal derangements, the topographical anatomy, normal and abnormal, the decubitus and its meaning, the voice with its indescribable notes of significance to the experienced clinician, the ear marks of heredity of good or evil import—study these I say and learn their fullest meaning, then add to them the knowledge of the real possibilities of therapeutic remedies as known to-day and he will have armed himself in the most fitting manner to successfully cope with the largest proportion of ills that the flesh is heir to. Be he surgeon or obstetrician he must add to the things above mentioned the mechanics of those branches of our art in which tactful fingers play so important a part.

If he has the good fortune to be a pathologist and expert bacteriologist as well, then indeed should we expect of him the highest possibilities of our calling. If he possess the former without the latter accomplishments, he may be useful, aye the most useful man among his fellows, but if he possess the latter and is not master of the former requirements then indeed will he cut a sorry figure when called to the bedside to assuage the sufferings of the afflicted,—a rudderless ship in an untried sea.

I once heard Dr. Gross say, if he was seriously ill he would prefer to have for his physician an experienced country practitioner, who had spent his life in a close, earnest effort to understand in the best way the significance of symptoms and the remedies best suited to their relief. When I recall the great calm face and the never-to-be-forgotten

voice of this Nestor of American surgery, then remember the fine diagnostic skill of some men whose field of action is "far from the madding crowd's ignoble strife," I am impressed anew with the meaning of his words.

The man who has such ready access to the aid and counsel of others too often becomes careless in his own methods and too often relies upon consultants possessing the same fault for like reasons. They do not give sufficient time to watching the progress of symptoms themselves, and place too much reliance upon the nurses' records. Many of them know far too little of therapeutic remedies and delude themselves into a false belief that to be a therapeutic nihilist is the evidence of superiority in their calling. This condition of mind arises from insufficient knowledge of the power of therapeutic agents in many instances. But what is necessary to be done that we may correct our faults and increase our usefulness as clinicians?

First increase the organized power of the medical profession by sending more of our competent fellows to the legislative halls of our government, to the end that their special knowledge upon subjects, which have engaged their life's attention and upon which so much of human happiness and well being depends, may be forever interwoven in the complex fabric known as public economy. Let the wisdom of experienced physicians be brought to bear upon the great question of child labor, not from the one-ideal and selfish standpoint of the commercialist to the end that the tender child aided by machinery may become the commercial successor of his parents in filling their positions, while at the same time he fails in earning their rewards, thus blighting the hope of future development of the young, and at the same time impoverishing the old. Rather let the experienced mind of the medical man point out the degeneracy and enfeeblement of mind and body sure to follow such short-sighted and mercenary policies—not alone of the present generation but as well of the generations yet unborn. Let the medical public economist point out likewise the dangers of turning our school children over to the care of teachers who know only pedagogies, whose sole conception of duty is to keep up such an espionage over their little charges as will crowd the same amount of fractions and fragments of knowledge into the aching heads of the astymatic little fellows as go into the brains of fellow students through normal eyes and serene brains. The pathway of childhood is strewn with nervous wrecks and discouraged inferiorities through the misguided assiduity of unfit teachers and boards of education. Have in your school government ripe clinicians who will teach the doctrine of sanitary science in all its beneficence, to the end that the same curriculum is not alike applicable to all minds any more than the same manner of locomotion or feeding is suitable for all animals, birds or fishes.

The fit medical legislator will stand guard over the unfortunates of our race and see to it that the insane and criminal classes are not

committed to the care of those who know nothing of the influences of heredity or the power of environment for good or evil.

France is proud to commemorate the deathless deed of her beloved Pinel by having her distinguished artist place upon canvas his humanity in removing the iron shakles from an insane girl, thereby placing the human above the demon within her. From that day until this, humanity has supplanted chains in every well ordered asylum throughout Christendom. The flower gardens, shady lawns, sunshine and singing birds have taken the place of the dungeon's horrors, thus benefitting the minds and bodies of the insane and at the same time increasing the admiration and allegiance to existing government and its laws in the sane.

Since medical men are capable of such things, let the organized profession to which they belong rise in its might and demand, not ask, that they be placed in all the responsible positions where charities and corrections and sanitary conditions are being considered for national weal. Let the physicians of our country demand cabinet positions to the end that honor will come where honor is due and "peace have her victories no less renowned than war." For has not Pope truly said:

"The wise physician skilled our wounds to heal is more than
armies to the public weal."

If you want proof of this in our day only turn your minds back to the immortal commission under the guidance of Dr. Walter Reed appointed by our government to go to Cuba and find the cause of yellow fever. Their work was so well done and so quietly, that only a small part of the intelligent world knew when and how or who brought it about. And yet I assert their work is of more real value to the world than that of any army in history.

The reasons why medical men should make the best of law makers is easily found by those who remember, that in point of general intelligence physicians rank with any other class; the course of their lives lies among all kinds and conditions of men and they are singularly devoted to that calling which takes them away from the allurements of the speculator and stock markets and keeps them face to face with the stern realities of life. If a man be half a doctor his sympathy for his fellow men must constantly grow and all his efforts tend toward helpfulness. He knows the needs of poverty and the extravagance of luxury. He learns to pity the one and despise the other. He is usually possessed of convictions and the courage to back them against all the blandishments of the oppressors, it is the spirit of Pinel that would unshackle the unfortunate and cause men "to deal justly and love mercy" throughout our land.

Put these good bedside physicians in power and the institutions for the care of the sick and afflicted would be opened for the students and doctors to perfect themselves in clinical study to the direct benefit of the people at large. Sanitation would flourish with all its bene-

ficence and no legitimate enterprise would fail of support at their hands. Nepotism, that curse of the deserving, would disappear and open the arena of fair play.

But you say this is an utopian dream; yes, and will be, until the fully organized medical profession decides to make itself felt, and then your doubts will melt away like the mists of the morning.

A short time since I heard a member of a university's medical faculty state that he considered any surgeon who had been ten years in practice behind the times; notwithstanding he had been actively engaged in getting good results. To my mind such nonsense is only useful in emphasizing the unfitness of such men for the positions they encumber. If they have been getting good results in their work they ought to be ten times as good surgeons as any first year man without clinical experience from any school on earth.

If any country has impressed upon the minds of the medical world the truth implied in the caption of my paper, it is our own; for two unknown young men, American born, educated in American institutions, a comparatively short time ago, went to locate in a prairie village in one of our western states and by dint of close application, close clinical study of each case that they might be better instructed in the one to follow, made honest reports of their work until Rochester, Minn., without the shadow of any university, without the aid of great laboratories, has become the surgical Mecca of the world whither come the wise men of the north, east, south and west, the four quarters of the globe, to see and learn of these plain, unostentatious clinicians, whose charity I am told goes hand in hand with their marvellous results.

Let clinical teachers everywhere be strictly honest in their work, not beclouding their teachings with fine spun theories without basis of demonstrable facts, pointing always to the certain ways that lead to help and healing. They should point out their mistakes and the causes therefor, that their pupils may avoid their own blunders. Teach well the physical signs of disease as well as the pathology from whence they come, give to bacteriology and chemistry their full measure of importance, always keeping uppermost the supreme importance of correct clinical observation and the known therapeutic agents.

About five years ago I had the honor to advocate before the Missouri State Medical Society the desirability, as well as the feasibility, of a national committee appointed and supported by the government whose duty it should be to determine by every known means the actual therapeutic value of every remedy which finds place in our National Formulary. I see that the German Government has recently installed just such a committee. The immense value accruing to medical practitioners from this source need not be descanted upon here.

In an address delivered on the 2nd inst. in St. Louis by President Roosevelt, he made the statement, in speaking of the work on the Panama Canal, that many people at first became very impatient and com-

plained loudly because the dirt was not flying. But he said, "the sanitary conditions had to be attended to first, in order that the people who had gone there might be able to prosecute their task, and it had been so well attended to that when he was there last November, amid a population of 5,000 men, women, and children, there had not been a single death for two months." This statement is well nigh incredible and, notwithstanding the President did not see fit to appoint a medical man on the original Panama commission, you will remember when pestilence threatened, the nation did as individuals do under such circumstances and sent for a doctor. One of our distinguished practitioners of New Orleans, Dr. Gorgas responded to the call with the above detailed results. He began by lifting these creatures out of their squalor, taking away the half-cooked, decomposing foods which had caused them to die, as men can die from the camp dysenteries that made such dreadful inroads upon our young men in the war with Spain. He builded a clean, modern hospital upon a high hill where drainage was best, gave them sanitary surroundings and scientific treatment—in short, set a light upon a hill that other men, seeing his good work, might follow after him.

President Roosevelt, after seeing his good work, with most commendable justice, made him a member of the Panama Commission. Thus it happened that the only man who actually *won* his place thereon was this national doctor—Dr. Laurence D. Gorgas.

Apropos to this statement allow me to quote again, at the close as at the beginning of this paper, from the most admirable address of Sir Jas. Crichton Browne. He says, "it is by no means certain that with the fall in death rate, there has come a corresponding improvement in National health and vigor. On the contrary, we have evidence of wide spread degeneration and debility and if these are to be counteracted, medical aid must be invoked and medical advice systematically applied. In one large town after another there exists a deplorable state of matters as regards the growth and health standard of children attending elementary schools, and as to the prevalence among them of defects of mind, sight and hearing, and of various distempers and if these evils are to be corrected and the next generation given a fair start, we must not only have feeding, the beneficence of which has been demonstrated in Leeds by a philanthropic physician, Dr. William Hall, but regular medical supervision of the schools and medical regulation alike of physical training and of the educational burdens imposed. More and more must medical men become family counsellors and prescribe, not so much physic, as the course and conduct of life that will render physic unnecessary. More and more must they stand sentinels at the gateways and embrasures by which our bacterial foes made their inroads on the homes of the people. More and more must they participate in the municipal and national government and in legislation in both houses, and help to the solution of many social problems such as those connected with crime, drunkenness, vice and moral depravity too long misunder-

stood in the absence of any recognition of the pathological element that often mingles with them."

I beg of you to ponder well the wise words of our eminent fellow worker across the ocean! They are not only applicable to the conditions in England, but are equally so to every country in the world cursed by the methods engendered by our modern commercialism which is sapping the very life of our childhood and filling our asylums with the gibbering wrecks of our manhood.

One of the finest bits of fiction extant, if it can be called fiction, is the portrayal of a physican of the old school by Ian McLaren, a Scotch divine, who so faithfully told the world of the character of his hero Dr. William McClure that it is said "every Shire in Bonnie Scotland felt that it was their own doctor who was being made the model for our admiration and love." What greater tribute could be paid to any class of men than that a whole country should ascribe to their family doctors the virtues of William McClure!

It is this class of our brethren I would exalt to the highest places in the gift of the people. These men whose lives have been freed from dross while being tried in the fires of self-denial, devotion to duty, honesty of purpose, and helpfulness to mankind.

The gentle Scotch preacher who builded this beautiful monument to country doctors not only of Scotland, but the whole world, has gone to his last reward, dying recently in our own country. "May the bonniest of brier bushes" bloom eternally on his grave and may his name forever be enshrined in the heart of every doctor who loves his profession and would bid it God speed.

ALIMENTARY INTOXICATION IN INFANTS.*

BY JOHN ZAHORSKY, M. D., ST. LOUIS.

Some gastroenteric diseases in infants are undoubtedly infections. The gradual onset, the protracted course, the local and general disturbance, and the final immunity, all give the earmarks of a bacterial invasion. In recent years Flexner's and Shiga's bacilli have been given a definite place in the etiology of ileocolitis.

Yet there are a great variety of digestive disturbances which cannot be given a place among the true infectious diseases. The clinical features represent rather a poisoning. These intoxications are often of bacterial origin and Escherich has suggested that ectogenic and endogenic infections may be distinguished, depending on the source of the bacterial products.

These poisons, however, have never been isolated. Clinically we assume their presence when the infant suddenly shows a digestive disturbance which cannot be attributed to a change in food as to quality or quantity. The toxic symptoms which some infants show at the beginning of alimentionation by cows milk must often be referred to an unknown idiosyncrasy. But in the case of an infant who is thriving on some milk, when toxic symptoms develop the assumption that an endogenic infection has occurred has been generally entertained.

It is a clinical truism that severe digestive symptoms are often a

*Read before the St. Louis Medical Society, November 2nd, 1907.

sequence of simple intestinal indigestion, and Kerly has insisted that the severe intestinal diseases may generally be prevented by the recognition of these mild digestive disorders and placing the infant on a cereal decoction.

The severe types of indigestion are preceded by the milder forms with such regularity that it is no wonder that Finkelstein (*Jahrb. f. Kinderheilkunde*, July, 1907) declares that all forms of indigestion are only different stages of the same disease. He recognizes four stages, viz:

The first stage he calls *Bilanzstörung*, which may be called the stage of stationary weight. In this stage, the clinical symptom which alone is prominent is that the infant does not gain in weight in spite of the fact that the quantity and composition of the milk are adequate. An increase of the quantity of the food results in no increase, or even a loss in weight. This is called the paradoxical reaction in indigestion.

The second stage is the familiar dyspeptic stage, which is characterized by stools which show that the food is not properly assimilated.

The third stage is called the stage of decomposition, or better the putrefactive stage. Here the stools give evidence of bacterial decomposition. The normal odor changes to an offensive stench which varies in different cases.

The fourth stage is that of alimentary intoxication, the subject of this paper.

Finkelstein deserves great credit for recognizing this syndrome, and its general acceptance promises very much to the progress of pediatrics.

To understand the pathology of alimentary intoxication in the restricted sense of Finkelstein, it is important to grasp certain fundamental conceptions in regard to the nutrition of infants. A healthy nursling should show no abnormal symptoms after the ingestion of a reasonable quantity of milk having a composition similar to mother's milk. He should gain in weight steadily. His temperature should vary little from the normal. The functions of the various organs should work harmoniously. Moreover, he should show a strong resistance to infections. Finally, he should possess the power to maintain a nutritive equilibrium on a considerable variation in the quality and quantity of his food.

When an infant is sick with indigestion he first loses tolerance to the quality or quantity of food. The tolerance to fat is usually broken first. After this, indigestion to the sugar is shown and, lastly, all ingredients of the milk seem to act as irritants. Then pathological symptoms arise after the ingestion of any milk mixture. Finally toxic symptoms arise which may quickly carry off the little patient.

Finkelstein has given a definite group of symptoms, all of which must be present to form his alimentary intoxication. These are: (1) Impairment of consciousness; (2) singular change in the type of respiration; (3) alimentary glycosuria; (4) fever; (5) collapse; (6) vom-

iting and diarrhea; (7) albuminuria and cylindruria; (8) loss of weight, and (9) leucocytosis.

Of these symptoms the first three are most characteristic; each may, however, vary in degree. The change in the consciousness may be very slight. The most common variety is known as the soporose form in which the infant lies quiet with the eyes closed or partly open, taking no interest in the surroundings. The eyes are sunken and the face has a distressed aspect. Sometimes the infant is wildly restless, delirious and has convulsions.

The change in the respiration is very characteristic. The respirations are regular but much deeper and more rapid than normal. When a child shows this symptom, with a very moderate temperature, the physician should always suspect alimentary intoxication.

The glycosuria is a most striking symptom. As a rule lactose and not glucose is found to be present.

Alimentary intoxication is generally preceded by intestinal indigestion and may be a complication of any disease. Its occurrence during the acute infectious diseases, such as pneumonia, erysipelas, cellulitis, dysentery, meningitis, and other infectious diseases, may rapidly produce death. In cases of chronic atrophy and chronic indigestion it is the one complication which is most to be dreaded.

Finkelstein made the remarkable discovery that the ingestion of a large amount of carbohydrates by an infant suffering from nutritive disorders is generally followed by symptoms of alimentary intoxication. Fat also contributes to the outbreak of the disease. Recently, I observed an instance which strikingly corroborates this discovery.

A female infant, aged 4 months, illegitimate, had been placed in a foundling asylum by her mother, who assumed a position as wet nurse. The infant did not thrive in the home and very soon presented symptoms of indigestion in the dyspeptic stage. A week later evidences of the stage of decomposition appeared. The infant's temperature was subnormal, the stools were very offensive and were passed frequently. The loss in weight was very great.

The mother persuaded her employer to take the baby from the foundling home. This lady had had a large experience with her own children and she directed the wet nurse to place the sick baby on barley water sweetened with milk sugar. About 7 per cent. of the sugar was added to the barley decoction.

On the following day the infant presented alarming symptoms; the lady thought the baby was dying.

On this day the baby showed the typical symptoms of alimentary intoxication. A drowsy condition had presented itself. The infant lay semiconscious with the eyes partly open. He could easily be aroused, however. The pulse was rapid and the rectal temperature registered about 100 degrees. The characteristic deep breathing was observed at once. No urine could be obtained. The diarrhea had in-

creased. The infant was in a state of collapse, the pulse being very weak.

What clinched the diagnosis was the fact that the infant recovered in twenty-four hours by leaving the sugar out of the barley water and giving tea as a stimulant.

These cases rapidly improve on starvation and water. Barley water or weak tea, with little or no sugar added, often produces marvelous results. Casein seems to have no place in the causation of this disease. Whey, however, can rarely be given.

This peculiar morbid condition is relatively frequent. In the last few months I have seen several cases which showed the characteristic symptoms, in only two of which, however, was the urine obtained.

About two months ago Dr. Lippe and I studied a case at the Washington University Dispensary, in which the presence of a reducing agent was demonstrated in the urine.

The infant was C. R., aged 6 months, who had been fed on the breast until he was four months old. Breast feeding was discontinued on account of a chronic nephritis of the mother. The infant was placed on condensed milk and did very well until two weeks before she consulted us at the Washington University Dispensary. The infant began to have diarrhea, and rapid emaciation followed. During the last few days the infant had grown steadily worse. The condensed milk had not been discontinued entirely. The stools were grass green and contained much mucus.

The infant presented symptoms of collapse. The eyes were sunken and consciousness seemed to be greatly disturbed. The soporose condition was immediately noticeable. Another feature readily observed was the rapid and rather deep breathing. The pulse was rapid and feeble. The rectal temperature was 101 3-5 degrees.

The frequent green mucous stools and the absence of blood in the passages suggested that the little patient was suffering from follicular enteritis. The history of the disease corroborated the clinical diagnosis, but the symptoms of collapse and semicoma suggested a severe intoxication.

The infant was placed upon rice water and weak tea. Twenty-four hours later the clinical picture had changed entirely; the infant had improved in every way. The stupor had given way to a clearness of intellect. The deep breathing was replaced by a respiration almost normal. The rectal temperature was 99 1/4 degrees.

A specimen of urine obtained by the mother contained a substance which reduced the copper sulphate of Haines' and Purdy's solutions, but did not give the fermentation test. The urine contained considerable albumin and its sediment revealed numerous tube casts (epithelial, granular and hyaline).

In short, the clinical syndrome of alimentary intoxication in the sense of Finkelstein was complete. The rapid amelioration on a starvation diet also corroborated the diagnosis. Here was an infant suf-

fering from follicular enteritis fed on a food rich in sugar, rather suddenly revealing alarming symptoms, who rapidly recovered on rice water and tea.

The infant did not return to the clinic, but I heard subsequently that the infant recovered.

It is worth repeating that this symptomatic syndrome by no means occurs during digestive diseases only. It may occur during the course of any infectious disease, and Meyer found that infants with pyloric stenosis usually die with similar symptoms. In fact, infants who are apparently healthy and fed on an irrational food, especially one containing an excess of sugar, may suddenly develop serious symptoms, as in the case of Saunder's disease (*Interstate Medical Journal*, No. 9, 1907). The prompt recognition of the symptoms during the course of any disease will save many lives.

The disease may occur in children as well as infants. Such a case occurred in my practice recently. The patient was a girl 5 years of age, who had been suffering from recurrent colitis for several weeks. She had several stools daily containing much mucous. No fever was present. A few powders of bismuth and calomel were given. After the first dose, the child commenced to vomit. Everything was rejected from the stomach for twenty hours. She had two passages from the bowels. The axillary temperature rose to 100 degrees. The skin showed marked vasomotor disturbances. The child was drowsy and took little interest in her surroundings. The deep breathing was immediately noticeable. Examination of the urine on the following day demonstrated the presence of a trace of albumin and some substance which reduced the copper of Haines' solution.

On a starvation diet, the symptoms disappeared in twenty hours.

The great importance of this condition is that it is usually superimposed upon some other morbid condition; and since its causation and cure are known, its recognition and differentiation from the primary disease gives a chance to do much good.

What is the nature of this intoxication? Finkelstein believes that it is a disturbance in metabolism and some toxic intermediary products are found. To me it has seemed more reasonable to regard the condition as an intoxication from bacterial products in the intestine. Three forms of intestinal putrefaction are now recognized. The first is the indolic type in which large quantities of indol are formed in the intestine. The second variety is called the saccharobutyric type and in this form decomposition products of sugar and fat are formed. The former is initiated by the colon bacillus; the latter depends on the activity of anaerobic microorganisms. The third variety is a mixed type in which the proteids, hydrocarbons, and carbohydrates are subject to bacterial decomposition. Indol is rapidly oxidized, probably in the liver, to indoxyl which combines with sulphuric acid and is excreted in the urine as indican. This substance is, therefore, not usually toxic. If, however, the power of oxidation is very much reduced

by persistent indigestion, improper feeding, intestinal disease, or some general infectious disease, the indol may not be oxidized and thus become toxic. In conditions in which a demineralization of the body occur, the oxidative functions may be so much inhibited as to permit putrefactive products from the intestine to reach the circulation. In what way sugar and fat favor this intoxication is still obscure. Herter has called attention to the fact that a withdrawal of sugar from the diet leads to a diminution of indican in the urine in certain cases of marasmus. An excess of sugar may inhibit the oxidation of bacterial products. Finally, a combination of saccarohutyric and indolic putrefaction may produce a compound which is toxic and yet not readily oxidized by the liver cells.

Furthermore, other toxic decomposition products may be produced. Phenol is sometimes formed in considerable quantities. There is no reason to suppose that all decomposition products have been isolated.

Whatever be the true explanation of the symptoms, the clinical syndrome known as alimentary intoxication deserves clinical recognition. In the way of prophylaxis it should be remembered that sugar is by no means a harmless substance and an excessive quantity may lead to serious mischief. Probably cane sugar is to be preferred in sweetening cereal decoctions. The old maxim that sweets may produce severe illness in children is corroborated by modern observations.

Looking back over my past experience I can recall numerous cases of sudden collapse in infants who had been fed on condensed milk and other foods which contain relatively a high percentage of carbohydrates. Especially in my work at the Bethesda Foundling Home these cases were frequently encountered. The source of the toxin could usually not be found. I feel convinced, without being able to give adequate proof, that many of these cases were due to alimentary intoxication. In summer when the excessive terrestrial heat naturally inhibits the oxidation in the infantile organisms, when an excess of sugar and fat is given, when putrefaction in the intestinal canal occurs most frequently, cases of alimentary intoxication may be suddenly brought about. What we have hitherto termed cholera infantum may really be a severe type of alimentary intoxication. In fact Finkelstein recognizes a choleric form of this condition.

Finally, I may state that the condition may occur in breastfed infants, especially when additional food is given. Only a few weeks ago I was asked to treat a baby afflicted with symptoms of collapse, diarrhea and vomiting, and marked cerebral symptoms. The deep breathing was well marked. Although no urine was obtained, the fact that the infant rapidly recovered on weak tea and rice water leads me to believe that Finkelstein's syndrome was complete. A few days later this infant was attacked by an infectious process in the lung, acute broncho pneumonia, from which also he made a slow recovery. In fact, alimentary intoxication breaks down the natural resistance to bacterial invasion, and infectious sequelæ may often occur.

THE EYE AND THE NERVOUS SYSTEM.*

BY A. E. DERWENT, M. D., CLINTON, MO.

The study of the neuroses of the manifest and obscure and often unrecognized symptoms from eye strain, has probably received less attention than most other branches of medicine, especially by the general practitioner.

While none has better opportunities for the study of these different systems, the general practitioner ordinarily has very meager opportunities to become proficient in recognizing the often obscure causes of some of the most important conditions, such as myoclonus or tic of the lid muscles. This is frequently diagnosed as chorea or hysteria, whereas it is often due to defective vision, or to various forms of ametropia, more often as a highly innervated heterophoria.

Digestive disturbances, such as constipation and diarrhea, persist with some children for years with the cause unrecognized, with various treatments and very often no permanent relief from failure to make a proper diagnosis.

I believe that 35 to 50 per cent. of glasses fitted by jewelers and most physicians in patients under 45 years of age are fitted wrong. Many of these cases get partial relief but go on with no further corrections. In 500 cases of refraction I have found that 35 per cent. of these, old and young, have some degree of innervated heterophoria. Very often these are not overcome by plus and minus lenses. I refer here entirely to spastic or muscle strain. Paralytic and congenital cases will not be discussed in this paper. Every case of refraction should be tested for muscle strain, without the use of cycloplegia before using refracting lenses.

A great many of these cases come for treatment of the eye after having been to numerous places to get glasses fitted, and failing to get relief are very much discouraged; usually, too, they have been taking long courses of treatment for the nervous system.

In many of these patients, with only one degree of deviation, this cannot be overcome either by exercise prisms or with plus or minus lenses.

De. Schwenitz says exercise with prisms is useful but often fails in convergence. Prisms in esophoria are of no service; continuous use of prisms is useful but tends to convergent excess. I have found that I can affect a cure in some of these cases by prescribing prisms both in exophoria and esophoria. Prisms changed often enough give comparative comfort in cases fitted both for distance and close work, and finally getting complete equalization of the muscles.

I have a patient who two years ago came with thirty-six degrees

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

deviation in one eye and twenty-eight degrees in the other, who refused to let me operate on the muscle as I advised.

Prisms as a last resort were prescribed in this case with a change of these every three months; this gradually overcame the trouble and after two years' time the patient is still wearing, though only part of the time, a two degrees prism with almost perfect comfort and the squint has all disappeared.

I believe a great many cases of nervous digestive neurosis and constipation go on for an indefinite time with undiscovered innervated heterophoria, which are fitted by most refractionists who do not discover at all the real trouble. Refraction is fast becoming an exact science and requires most careful judgment and skill.

Four hundred inmates of the Elmira State Reformatory School, of New York, were found to have defective vision. Several cases of epilepsy have been cured lately by the proper correction of eye defects.

Every district school should have a refractive chart hung up in the school room, and backward children should be made, by the teacher, to read the test letters to see if there is any defect in the vision. Especially the eyes of every nervous child should be examined by a competent oculist. The majority of vicious children have vicious eyes and if these can be discovered early enough it will save the child a vast amount of suffering and put it on the road for doing better work at school.

DISCUSSION.

Dr. T. A. Coffelt, Springfield: Frequently a nervous child is taken to an oculist, who tries to correct the errors of refraction hoping to overcome the nervousness; but many are not relieved by the correction of errors of refraction. It is only by correcting this muscular balance that the patient is cured. More frequently the condition is not relieved and the patient goes from doctor to doctor, each of whom overlooks this muscular insufficiency, and he remains uncured and becomes discouraged. There is one peculiarity about the eye muscles and that is they must have just so much dynamic force or there will be disturbances, headache, pain or nervousness. I remember recently a school girl came to my office who had been complaining of headache. There was but little error of refraction, but the condition of the recti muscles was such that the eyes could not fuse their images through a prism over one degree base either in or out.

Dr. John Green, Jr., St. Louis: I do not agree with the doctor in the use of prisms in any case except where the deviation is vertical. The training of the internal and external recti by means of prisms is frequently indicated, but if I understood correctly, Dr. Derwent proposes to compensate for the lateral deviation by means of prisms, which I believe not to be good practice. We should correct the refractive er-

ror and then if there be heterophoria use prism exercises. Disease of the sinuses of the nose often cause muscle imbalance. Often the patient with persistent headache will go from one to another ophthalmologist without obtaining relief. It may finally be discovered that there is an occlusion of one of the sinuses and when that is corrected the patient gets relief. In connection with headache we should remember that nervous individuals often have headaches not due to eye-strain. There is such a thing as a nervous constitutional headache not due to eye-strain and though we may find a refractive error and correct that we will not relieve the headache. I think it possible that eye-strain may have some contributing effect in the production of epilepsy, but I do not believe it is the fundamental cause.

Dr. Derwent, in closing: I think my statements have been taken rather too broadly. I said that many cases could be cured. It depends upon the adduction and abduction we have in the eye. In many cases it cannot be overcome, but in many others the prismatic exercises will accomplish good results.

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M. C. SHELTON.

EDITORIAL.

THE COUNTY SECRETARIES' MEETINGS.

Arrangements have been completed for holding the meetings of the county secretaries. One meeting will be held in St. Louis and one in Kansas City. The date set for the St. Louis meeting is December 19th, at the Medical Library Building, 3525 Pine street; the Kansas City meeting will be held on December 23rd, in the parlors of the Midland Hotel. It is hoped that a large number of the county secretaries will attend these meetings.

The organization of the county secretaries will undoubtedly be the means of extending the influence of the county societies and enlarging the field of usefulness of the members; and through them the State Association will become a greater power for good than it ever has been. It must not be forgotten that the county society is the root-stock of the State Association; and if county societies will actively engage in the discussion of the various phases of the many problems which it is the privilege of the medical practitioner to voice, the State Association will flourish and its influence spread and grow until we shall see the accomplishment of those worthy objects for the attainment of which it was organized. But if the county societies are not wakeful and alive to the interests of the profession and of the people, and if they do not exhibit an active interest in these affairs, the work of the State Association can never be effective nor lasting.

LICENSES REVOKED.

Two more fake cancer doctors have been deprived of their licenses by the State Board of Health. They are Dennis R. Dupuis, alias Rupert Wells, and S. R. Chamlee, both of St. Louis. Health Commis-

sioner Bond through the various branches of the St. Louis Health Department collected the evidence in these cases and presented the charges before the State Board of Health. In the presentation of these cases before the board he had the assistance of the St. Louis Medical Society through its attorney, Mr. I. V. Barth. Therefore much credit is due to Dr. Bond and Mr. Barth and to the St. Louis Medical Society for the energetic and effective work which enabled them to carry these cases to a successful prosecution before the State Board of Health.

Of that class of advertising doctors most guilty of flagrant violations of the Medical Practice Act and of ethical conduct, four have now been deprived of their licenses; they are Bye and Johnson, of Kansas City, and Dupuis and Chamlee of St. Louis. Other cases are pending before the State Board of Health but they were laid over until the next meeting. County societies in other parts of the State have taken up the matter of prosecuting illegal practitioners in their districts, so that we hope to chronicle the disappearance of other fraudulent doctors soon after the next meeting of the Board.

In this connection we are glad to publish a list of persons and institutions who have been denied the use of the United States mails and, therefore, newspapers carrying these advertisements will be unmailable. The postmaster in St. Louis has notified all St. Louis newspapers to that effect. The following persons and institutions are affected by this order:

Dr. DeMeyers and DeMeyers-Dennis Medicine Company,
DeMyers Sanitarium, 2112 Olive St.,
Dennis Sanitarium, 2639 Washington St.,
North Side Sanitarium, 809 Bel. St.,
South Side Sanitarium, St. Louis, Mo., and Office, 51½ Main St.,
East St. Louis, Ill.
Dr. Mahon and Dr. W. T. Mahon, 2304 Park Avenue,
Mrs. Pauline Kahn, 3117 Nebraska Avenue.
Mrs. Dr. Smith Bruegel, 3507 Franklin Avenue,
The South Side Sanitarium, 2344 South 12th St.,
Mrs. Whittle, 2910 Olive St.,
Dr. Demmler and Thomas Remedy Company, 3125 Olive Street,
Mrs. Mary Arthur, 3129 Morgan Street,
Mrs. A. Schroeder, 2907 Franklin Street,
Ward Remedy Company, 2902 Washington Avenue,
Mrs. Hoelker, 2232 Clark Street,
Mmes. Merrifield & Unger, 6407 Easton Avenue.
Dr. Fitzporter and Galen Medical Institute, 1516 Chestnut St..

These advertisements were of a character containing information and giving notice where abortifacients and the performance of criminal operations could be obtained, which is in violation of the revised statutes of the United States.

In addition to closing newspaper advertising to these persons and institutions the post office department has declared the following names to be fictitious; therefore, any mail addressed to them will not

be delivered but will be sent to the Dead Letter Office as fictitious matter:

DeMyers-Dennis Medicine Company,
DeMyers Sanitarium, 2112 Olive Street,
Dennis Sanitarium, 2739 Washington Street,
North Side Sanitarium, 809 Bel.....Street
The South Side Sanitarium, 2344 South 12th Street,
South Side Sanitarium,
Galen Medical Institute, 1516 Chestnut Street.

Through evidence gathered by the Health Department, all these people have been convicted, in the police courts, of violating either the Medical Practice Act or the provisions of Ordinance No. 22998, recently passed by the municipal assembly of St. Louis, which require all institutions to obtain a permit from the Board of Health. This and other evidence was submitted to the postmaster, who ordered an investigation of the business methods of these people; and the result of this investigation was the action above noted.

The medical profession throughout the state should feel greatly encouraged in its efforts to purify its ranks of these pests. A few more convictions and a few more stop orders by the post office department will cause the rest of them to depart, with their wonderful discoveries and their sure cures, to more fertile fields—as did Francis and Francis, two of the worst advertising quacks in St. Louis, who left that city just in time to prevent the post office department from issuing a fraud order against them.

THE DOCTOR IN POLITICS.

The two representative British medical journals, the *Lancet* and the *British Medical*, have recently given considerable space to lengthy editorials bearing on the vital subject of the good that results, not only to the medical profession but to politics *per se*, by the election to office of medical men. Among the famous men cited we find Combes and Clemenceau in France, Dr. Jameson at the Cape and Professor Baccelli in Italy; and in a lesser degree Mr. R. R. Dalglish, who “has received the honor of mayoralty for the ninth time since 1885, while the Montgomery records announce that Mr. N. W. Fairles-Humphreys has eight times been mayor. But the blue riband for medical mayors must be accorded to the historic borough of Saffron Walden in Essex, where during the latter half of the eighteenth century the civic chair was occupied by medical mayors on six occasions, during the nineteenth century 17 times, while the century in which we are now living has already seen three medical men in the highest municipal post.”

The foregoing statements from authoritative sources indicate that in certain parts of the world the fact that a man is of the medical profession is no deterrent to his entry into the political arena. Again,

the fact that a number of the doctors have been repeatedly honored illustrates an appreciation of their powers to administer public matters and a possession on their part of principles of so high a character that one may say with considerable assurance in no case has there been evidence of a doctor's reputation becoming tarnished through politics. And here we might dwell on the enormous possibilities for good which the medical man can exercise when he accepts an office of inferior or superior worth. While every doctor who is elected to a political position cannot wield the power of a Combes, who is the present premier of France, or of a Clemenceau, he nevertheless may be the means of influencing, by reason of his scientific knowledge, the many problems which will confront him. And these problems, involving sanitation, pure food laws, legislation against quackery, child labor, the smoke nuisance, are surely not light material but such stern stuff that a superior amount of knowledge is necessary to combat them effectively. Now, although the cabinet at Washington has never had a medical member and may never have one, considering how things are arranged with us; and other high offices throughout the land may continue to be closed doors against the profession, the fact remains that no small importance should be attached to a membership of the legislature or to the mayoralty of even a small town, when such positions are filled by medical men of the stamp set forth in the British journals. For by keeping the interests peculiar to the medical man's vocation independent of the interests attaching to a political position, the latter is so strengthened by the splendid quality of disinterestedness that its powers to correct sanitary mistakes (to take but one instance), or abolish the many abuses which obstruct the way to success, are illimitable. And the sooner the doctor who wishes to realize the high ideal which can result from the association of medicine with politics, learns the importance of the right interplay of one with the other, the sooner will be taught to the world at large the necessity of electing that sort of man in preference to one whose politics overshadow his little knowledge to such an extent that he is a mere politician, with all the moral shortcomings of that class.

PROCEEDINGS OF THE MEETING OF THE STATE BOARD OF HEALTH, NOVEMBER 19, 20, 21, 1907.

The State Board of Health met in St. Louis on November 19th and remained in session three days. In addition to depriving Dupuis and Chamlee (fake cancer doctors) of St. Louis of their licenses, the license of one midwife, Mrs. Emma L. Bridges of St. Louis, was also revoked; Dr. B. A. Duncan, of Moorehouse, Missouri, was found guilty of illegal traffic in intoxicants, but judgment was suspended for one year pending good conduct, and Dr. Harry S. Brevoort, of St. Louis, was charged with impersonating Dr. Chamlee but judgment in his case was also suspended for one year pending good conduct.

The Barnes Medical College, having failed to equip its laboratories with proper apparatus for the teaching of medicine, in accordance with the requirements of the Board, was not placed upon the list of accredited medical colleges of the State thus barring its students from examinations before the Board for licenses to practice in the State. The Hippocratean College of Medicine, of St. Louis, was also discredited for similar reasons. The latter is the recently inaugurated night school for medical students.

The Board agreed that the State Bacteriologist, Dr. Guthrie McConnell, of St. Louis, should analyze for tuberculosis bacilli such dairy products as may be furnished him by the State Dairy and Pure Food Commissioner and that a report of such analysis shall be incorporated in the Bacteriologist's quarterly report to the State Board of Health.

The following resolutions were adopted:

"Resolved that, Inasmuch as cow's milk forms such an increasingly large part of the diet of the infants and the children of this State, and inasmuch as the value of milk as a food depends nearly, if not quite as much, upon its cleanliness and freedom from disease-producing bacteria as upon its chemical composition, therefore, it is the opinion of this Board,

That all the larger towns of the State should safeguard the health of their several communities by passing ordinances for the control of the milk and cream supply of their cities:

That they should empower the mayor to appoint some competent person, preferably a competent physician, to act as local health officer and dairy inspector, to be paid a reasonable salary for his services: and,

That all towns so endeavoring to protect themselves should be offered the active co-operation of the State Board of Health, the State Dairy and Food Commissioner, and the Veterinary Department of the State Board of Agriculture."

The above is especially recommended because of the increasing prevalence of tuberculosis in the dairy herds of the State and the danger in consuming milk from such diseased animals.

The Pure Food Commission plans to purchase guinea pigs, to be inoculated with milk from suspected cattle, in an effort to determine the presence of tuberculosis.

The proposition of the Missouri State Antituberculosis Society to send over the State an exhibit car for disseminating knowledge on tuberculosis, was laid over until the January meeting.

Professor Charles Calvert, of the engineering department of the Missouri State University at Columbia, submitted a plan for the geological water survey of the State, which was approved by the Board. The plan is to investigate the condition of the water in various sections of Missouri to determine its wholesomeness for drinking purposes. State Bacteriologist McConnell was authorized to assist in this work.

THE COUNTY POOR FARM.

At the joint meeting of the committee on public policy and legislation and the representatives from county medical societies in July, 1906, Dr. Highsmith, of Carrollton, stated that the county poor farm in his (Carroll) county was in a deplorable condition and that no steps could be taken for improving this state of affairs because there was no legal provision for such a contingency. Several other members from different counties spoke of the dilapidated condition of the poor houses in their localities, and all deplored the absence of any legal provision for improving these homes and making the inmates more comfortable. The suggestion was made that the State Association endeavor to direct legislation which would enable county authorities to raise money for the purpose of improving the condition of the poor houses. So far as we know nothing further has been done in this direction. It is, however, a subject which the members of county medical societies can discuss with profit, for they are in a position to suggest many improvements which will make the lot of the unhappy inmates pleasanter and happier.

Recently this matter was made the subject of a strong editorial in the *Bunceton Weekly Eagle*, published in Cooper county, and a full description of the deplorable condition of the poor farm was published at the same time. We believe the editorial will be equally applicable to the condition of the poor farms in other counties and, therefore, we publish it in full.

We hope that county societies will take up this question and that a movement may be started which will result in providing means whereby county authorities may be empowered to raise money for this purpose. The editorial is written under the caption "Is Poverty a Crime," and is as follows:

"Is poverty a crime? Is the man or woman who is growing old and gray committing a wrong in the eyes of the law? Is it a double crime to be both old and poor in Cooper county? These questions are naturally answered in the negative.

How, then, will you answer this: Why are the inmates of the Cooper county poor farm denied the comforts and conveniences such as even transgressors of the law are permitted to enjoy?

The inmates of the state reform school at Boonville live in a palace as compared with the old frame shacks wherein are housed Cooper county's poor. At the reform school are beautiful grounds, flowers and pleasant surroundings, with the comforts of steam heat, water and sanitation, just as it should be. Even the hardened criminals in the Missouri penitentiary are made far more comfortable than the unfortunate inmates in Cooper county's poor house. In the penal institutions, hospitals are provided for the sick, there is spiritual consolation for the dying, and the insane are cared for at the asylums where they belong. But not so in all the so-called charitable and eleemosynary institutions.

Right here in Cooper county, with its boasted wealth and tradi-

tional pride, old gray-haired men and women live and die—yea, die a thousand deaths—in old frame buildings, than which many of the comfortable cabins of slave days were better. Here for years many of the pitiable creatures have existed, often shivering from cold in winter, almost driven to desperation by the swarms of flies in summer, and for years fighting a battle with bed-bugs. The moans of the suffering and the meaningless words of the partially demented make of the lives of the others a half hell. No adequate heating arrangements, no water-works, no bath rooms, no sewerage system. No pleasure for the living, no spiritual comforter—only the consolation of getting away—for the dying. After death, perhaps an unmarked pauper's grave—and forgotten. A terrible picture, you say. Yes, terrible because true!

"The measure of a civilization is the provision it makes for its poor," said Dr. Johnson one hundred years ago and it's as true now as it was then.

The gloomiest place in Cooper county is the poor house—rightly named. And the trip is truly "over the hills to the poor house," for the road from Speed, the nearest railroad point, is anything but good. More, though, ought to take the trip just to see for themselves, and they will come away sorrowful and ashamed.

The conditions, much as they have been improved under the present management, are still almost inconceivable. The buildings are old and dilapidated, and in no way suited to the uses to which they are put.

There is no reason why Cooper county should not provide comfortable, decent and modern buildings for the unfortunates whom a cruel fate has committed to her charge. Because these poor people have fallen down in life's race, and have become destitute and helpless, and perhaps diseased and demented, is no reason why they are not entitled to the rights of a county home instead of a miserable poor house.

Let us have a county home and call it such. Out of consideration for the inmates and their relatives we have changed the names of other public institutions. We now have the state training school for boys instead of the reform school, industrial school for girls instead of reformatory, and hospitals for the insane instead of lunatic asylums, but we still use those unfeeling names, "poor house" and "poor farm." And just as we have not changed the name, neither have we changed the character of the institution.

All the blame does not rest on past county courts or poor farm superintendents. As Judge Martin remarked last week, "We have been particularly fortunate in the character of men we have had, as there have never been any charges of cruelty, nor any scandals." Yet Judge Martin, taking advantage of a wise provision of the last legislature, saw fit to have the grand jury inspect the buildings, and the report is worthy of consideration.

The fault is with the people and the cause of it is a lack of knowledge and thought. Cooper county's sin has been one of omission. No conscious cruelty is responsible for the kind of "poor farm" that Cooper county imposes to make poverty appalling. The light ought now to break through. The time ought to be at hand when the people of Cooper county will respect the rights of the unfortunate under the law as readily as they would recognize the appeal of distress to their private generosity. How very little it would take from each man's fortunate portion to build a county home that would substitute decency and cheerful comfort for the gloom of despair and isolation!

There surely can be no one who fears that the lot of the helpless and destitute men and women might be made too pleasant. There is no reason for treating such persons as though poverty were the worst offense, unworthy of even the creature comforts that await the criminal.

The present county farm should be sold and the proceeds applied toward providing a modern county home, conveniently located to some railroad point and having the advantages of light, heat, water and a sewerage system. There should be a hospital room for the sick, and a competent attendant to constantly look after all the patients. No insane persons should be kept at the county institution, just for the sake of saving a few paltry dollars, nor at all unless a ward be provided especially for them. The ball and chain is not for modern civilization, and the idea of keeping demented persons chained at the poor houses belongs forever to a dark and ignorant past.

With the money derived from the sale of Cooper county's present poor farm but little additional would be needed to provide a modern, accessible and convenient county home—not the traditional poor house. Let the movement take active form. Hasten a special election, pay the long overdue debt to humanity and properly provide for the poor who live in life's dark evening. The tax would be inappreciable, and no man, whether he calls himself Christian, humane or merely civilized, should object.

The saving in the present system, if there is any, is not worth the dishonor.

Poverty, as the result of misfortune, is not a crime, and those who have by natural impediment or ill fortune been outstripped by those who have lands, houses and homes of their own are not criminals."

ANTITUBERCULOSIS WORK.

CONFERENCE BETWEEN THE STATE BOARD OF HEALTH AND THE MISSOURI STATE ASSOCIATION FOR THE RELIEF AND CONTROL OF TUBERCULOSIS.

As will be remembered, an organization was effected at the meeting of the Missouri State Medical Association last May at Jefferson City by a number of members who proposed to make a state-wide fight against consumption, the temporary organization being there made permanent, thus in a special manner constituting it the child or outgrowth of the medical body.

Later, legal incorporation was effected and work was begun to secure organization in every county and town looking to the overthrow and extinction of tuberculosis.

This work has been pressed as much as possible, all things being considered, and something has been accomplished, but progress has been hindered by lack of funds, voluntary contributions having been very meagre.

An auxiliary movement, made at the May meeting in the Section on Medicine, proposed the preparation of an abridgment of the series of papers read there in the symposium on tuberculosis, and their publication and circulation in pamphlet form, the cost to be met by the col-

lection of twenty-five cents from each member of the local societies, but this plan was found to be unworkable, very few responses having been made.

It is hoped, however, that the State Medical Association will itself assume this expense, and negotiations to that end are pending, with favorable prospects, as the wide distribution of such literature will greatly aid the antituberculosis society in its work.

In order to encourage thorough local organization it is in contemplation by the State Association for the Relief and Control of Tuberculosis to equip a car with a complete exhibit of all the aids and appliances found useful in the war on consumption, also charts, diagrams, photographs, literature, stereopticon outfit, etc., and send it out on a tour of the state, holding a meeting and giving lectures and demonstrations in every town where such can be arranged for, thus teaching by eye and ear the risks and remedies in relation to this wide spread plague.

Experience in St. Louis and elsewhere has shown that in no other manner can these truths be so convincingly brought home to the minds of the people.

The money needed for this undertaking, however, is not in sight, but a conference was held, on November 21st, last, between the State Board of Health and the officers of the Association and the subject was carefully considered, but no final decision was reached it being agreed that as complete an estimate as possible of the probable cost of such an enterprise should be submitted at the meeting of the Board next January. The opinion was expressed at this meeting that this project, if realized, should be conducted under the joint auspices of the Board and of the Association.

As the suppression of tuberculosis is a sanitary service of the highest moment, and as the Board has a fund for sanitary work, it is thought that possibly a way may be found whereby aid can be extended in the work of equipping and operating the exhibit car. If this can be done it will place Missouri in the very forefront of sanitary progress, as nowhere has such a means of reaching the people been employed.

As another means of reaching the public the Association has established a journal of its own, called *Control*, the first number of which appeared in November and copies of which can be had of the Secretary, Mr. R. J. Newton, 625 Locust St., St. Louis; subscriptions may be sent to the same address.

The possibility of preparing and presenting an exhibit representing Missouri at the International Tuberculosis Congress, which will meet at Washington, D. C., next September, is also being considered by the Association, and the counsel and the aid of the medical profession in this respect is cordially invited.

THE REORGANIZATION OF IRON COUNTY MEDICAL SOCIETY.

Iron County Medical Society was reorganized and will begin active work. The following members were present at the reorganization of the meeting: Ira A. Marshall, Ironton; R. W. Gray, Ironton; G. W. Farrar, Jr., Ironton; C. C. Kerlegon, Belleview; J. Q. Adams, Belleview; E. L. Barnehouse, Ironton; Jas. Martin, Pilot Knob; C. Jones, Des Arc.

We are pleased to chronicle this activity in Iron County and shall look forward to publishing the proceedings of the meetings.

ARTICLES APPROVED BY THE COUNCIL ON PHARMACY AND CHEMISTRY.

Benzo-Formol Comp. (H. K. Mulford Co.)
 Blandine Comp. (H. K. Mulford Co.)
 Cremo-Bismuth (H. K. Mulford Co.)
 Methyl-Santal (H. K. Mulford Co.)
 Protan (H. K. Mulford Co.)
 Coryfin (Farbenfabriken of Elberfeld Co.)
 Monotal (Farbenfabriken of Elberfeld Co.)
 Novaspirin (Farbenfabriken of Elberfeld Co.)
 Taka-Diastase (Parke, Davis & Co.)
 Colalin Laxative (Rufus Crowell & Co.)
 Maltzyme with Cascara Sagrada (Malt-Diastase Co.)
 Maltzyme (Plain) (Malt-Diastase Co.)
 Maltzyme with Cod Liver Oil, (Malt-Diastase Co.)
 Maltzyme with Cascara Sagrada (Malt-Diastase Co.)
 Maltzyme with Hypophosphites (Malt-Diastase Co.)
 Maltzyme with Yerba Santa (Malt-Diastase Co.)
 Maltzyme Ferrated (Malt-Diastase Co.)

The Committee on Medical Legislation of the American Medical Association will meet in Chicago December 10th, 11th and 12th, in conjunction with the members of the National Legislative Council. Dr. F. J. Lutz, of St. Louis, is the member of the Council from Missouri and Dr. H. E. Pearse, of Kansas City, will represent the Missouri State Medical Association at the meeting.

On Saturday, November 30th, the officers of the St. Louis Medical Society gave a "smoker" to the members of the Society. About two hundred members attended. After short addresses by Dr. H. Tuholske, "A General Talk"; Dr. C. H. Hughes, "Recollections of Early Medical St. Louis;" Dr. O. A. Wall, Sr., "Our Schools of Medicine and of Pharmacy;" Dr. Hugo Bartscher, "Pure Food Legislation," light refreshments were served.

Dr. Kenneth W. Millican, formerly editor of the *St. Louis Medical Review* and now connected with the *Journal American Medical Association*, was honored with a banquet on November 8th at St. Louis.

Dr. Millican's career as an editor needs no comment here, his written words having already proclaimed his efficiency. Though no further remarks are necessary to place him in his true light as editor, before the medical public, it may not be inopportune to mention here the qualities of head and heart which have been the means to an end envied by many. Learning and graciousness are qualities of the first order but when the former is tempered with modesty and the latter is strengthened with a fellow feeling of unusual proportions, they make for much in developing character and citizenship. And Dr. Millican has always shown full possession of all these good points.

The following toasts were given: The Man We Honor and Why We Honor Him, by Dr. James Moore Ball; Dr. Millican as a Friend, Dr. J. R. Lemen; Dr. Millican as a Scholar, by Dr. M. G. Seelig; Dr. Millican as an Editor, by Dr. Louis M. Warfield; Why We Regret to Lose Him, by Dr. O. A. Wall; Our Wishes for His Future, by Dr. John C. Morfit.

The second annual meeting of the Medical Association of the Southwest met at Hot Springs, Ark., October 8th, closing the 10th, with something over 100 active, enthusiastic physicians and surgeons in attendance. The papers read were of an unusually high character and were all ordered published in the different state journals.

The report of the executive committee gave in detail the work of the association for the past year showing the efforts made to bring the association to the attention of every practicing physician who was a member of the component state associations, and to adjust the matter of constitution between the House of Delegates of the A. M. A. and the association; and asked that its action in appointing a committee to confer with the committee on organization of the House of Delegates of the A. M. A. at the next annual meeting, be approved by the general association.

The following officers were elected for 1908: President, T. E. Holland, Hot Springs, Ark.; vice-presidents, S. S. Glasscock, Kansas City, Kans.; S. C. James, Kansas City, Mo.; J. E. Gilcreest, Gainesville, Tex.; B. J. Vance, Checotah, Okla.; secretary-treasurer, F. H. Clark, El Reno, Okla.

Howard County is keeping up its record for prompt payment of dues and regularity of meetings. Dues for 1908 were collected on November 1, at the annual meeting of the Society. The energetic secre-

tary, Dr. C. W. Watts, has entered upon his fifth year as secretary of the Society and has almost completed his fiftieth year in practice.

Dr. W. F. Kuhn, Superintendent of State Hospital No. 2, at St. Joseph, with the approval of the Board of Managers, has appointed a consulting staff for the Hospital consisting of the following physicians: Gynecology: Dr. Chas. H. Wallace, Dr. J. W. Heddens. General Surgery: Dr. L. A. Todd, Dr. W. F. Schmidt. Internal Medicine: Dr. T. H. Doyle, Dr. W. B. Diffenbach. Eye and Ear: Dr. E. G. Renaud, Dr. Barton Pitts. Nose and Throat: Dr. L. R. Forgrave, Dr. Perry Fulkerson. Pathology: Dr. A. B. McGlothlan. Consulting Pathologist: Dr. S. A. Good.

This is somewhat of an innovation in the management of state hospitals in Missouri, but the excellent results following its introduction in other parts of the country induced Dr. Kuhn to recommend its adoption in the State Hospital at St. Joseph. The system has been on trial at St. Joseph but a short time, yet it has resulted in considerable benefit to the patients.

CORRESPONDENCE.

CONCERNING THE COUNTY SECRETARIES' ASSOCIATION.

"The plan meets with my hearty approval. I see no reason why a good attendance could not be had. I will certainly meet with you at Kansas City and if possible attend the St. Louis meeting."

C. T. RYLAND, M. D.,

Councilor 14th District.

"We certainly need to do something. I have felt for some time very much discouraged in regard to the condition of our societies, but I am willing to do everything that can be done to make them what they should be. I think it will be well to try the two meetings. I think that we can get a very good attendance at these meetings; and frequently, you know, we stir up a lot of enthusiasm. So count my vote for it. I suppose I will be in the eastern district and will try to get all my secretaries to be present."

WOODSON MOSS, M. D.,

Councilor 9th District.

"I approve of the plan. We have nearly all of our county physicians in our Society, but there are many other matters of interest to talk about. The Secretary of the County Society generally has the most of the work to do I know; it is so in my own, as I have been secretary since the organization. Some time during December will suit me, as I will be away from home after the 19th of the month, contemplating a trip to Oklahoma for ten days."

TINSLEY BROWN, M. D., Secretary,

Secretary Caldwell County Medical Society.

"Replying to yours of the 29th, will say that your plan meets with my hearty approval. I see no reason why a good attendance could not be had. I will certainly meet with you at Kansas City and if possible attend the St. Louis meeting."

C. T. RYLAND, M. D.,

Councilor 14th District.

"I am heartily in favor of the proposed call of the councilors and secretaries and think we could become better organized and come to a more perfect working plan to meet in December, as the secretaries who have been in service the past year would likely have a clearer conception of the needs of the profession and how to work together than new

ones. If such a meeting is held our Society will send its secretary; our councilor, Dr. Shuttee, will also come."

A. H. THORNBURGH, M. D.,
Secretary Howell County Medical Society.

"I heartily indorse the plan. It is not only a good policy but, in my opinion, an absolute necessity. You may feel assured of my help in the indicated direction. I will be present at each meeting wherever it is held and regardless of the wishes of my society in regard to railroad allowance. As councilor of this Sixth District, I am ever more interested in your project. While my district is thoroughly organized and doing fairly good work, I am sure that there is a great deal of room for improvement."

H. JURGENS, M. D.,
Councilor 6th District.

"Your idea of having a meeting for the secretaries and councilors I consider very good indeed. I am in favor of the meeting and will come. I would think it wise to extend an invitation to the presidents of the county societies also and were it possible to have as good attendance, would think it much wiser to have but one place of meeting; first, because numbers would add strength to the movement; second, because then each would have the advantage of the experience of all instead of part and third, because it would more likely insure co-ordinate action and consequently produce better results. But the fact that it is very hard to get doctors to give much of their time or to go far from home makes the other plan seem very plausible. I am heartily in favor of either and am sure it will bring results."

FOSTER BURKE, M. D.,
Secretary Linn County Medical Society.

"The idea of calling a meeting of the councilors and secretaries of the county societies is a good one. The meeting would stimulate, harmonize, and in many ways do good."

D. W. COON, M. D., Secretary,
Grundy County Medical Society.

"As secretary of our society, I will be pleased to meet with the secretaries at any time."

G. C. COFFEY, Secretary,
Platte County Medical Society.

"I think it a good idea for the different secretaries to meet and devise some means to get a better turn-out at the county meetings. In fact I would do most anything to get things in better shape at this place."

JAS. A. TOWNSEND, M. D., Secretary-Treas.,
Putnam County Medical Society.

"I am in favor of a meeting of secretaries and councilors. St. Louis and Kansas City are suitable places for the two meetings. I will attend if the meeting is held before January 1st; if after that time I believe my successor in office will attend and I believe our Society will gladly bear expense to such a meeting."

F. H. BROYLES, M. D.,
Secretary Harrison County Medical Society.

"The idea of having a meeting of the society secretaries is a good one and one that I endorse. I will bring this up at our next meeting (which, by the way, is going to be a good one)."

R. K. OGILVIE, Secretary,
Mississippi County Medical Society.

REPORT OF THE MEETING OF THE COMMITTEE OF ARRANGEMENTS FOR THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.

Progress along all lines connected with the International Congress on Tuberculosis which is to take place in Washington from Sept. 21 to Oct. 12, 1908, was shown by the reports presented at a meeting of the Committee of Arrangements, held in New York, at the Associated Charities Building, Monday evening, Oct. 28. Dr. Lawrence F. Flick of Philadelphia, Chairman of the Committee presided, and the other members present were Dr. Joseph Walsh, Philadelphia, secretary, Dr. John S. Fulton, Washington, Secretary-General, Mr. William H. Baldwin, Washington, Dr. Hermann M. Biggs, New York, Dr. Frank Billings, Chicago, Mr. Edward T. Devine, New York, Mr. Livingston Farand, New York, Dr. J. C. Greenway, Greenwich, Conn., Dr. Chas. J. Hatfield, Philadelphia, Dr. Abaham Jacobi, New York, Dr. Alfred Meyer, Mrs. James E. Newcomb, New York, Gen. Geo. M. Sternberg, Washington, and Dr. Wm. H. Welch, Baltimore.

The meeting was the first held since Dr. Flick's return from abroad, and his reports of his visits to the International Conference on Tuberculosis in Vienna and to the International Congress on Hygiene and Demography, at Berlin, were interesting features of the session. More than a thousand delegates were registered at Vienna, he said, and the gathering at Berlin was quite as large. The leading men in both associations are looking forward with a great deal of enthusiasm, Dr. Flick said, to the meeting in Washington, next year, and about four hundred, of the members of the foreign organizations may be expected to attend the Congress. The Conference selected this

country as its place of meeting in 1908 just as the Congress did two years ago. The Conference and the Congress are two distinct organizations. The International Conference on Tuberculosis meets every year and keeps up a continuous organization with headquarters in Berlin. The International Congress on Tuberculosis meets only once in three years and does not maintain an international bureau in the intervals. Dr. Flick stated that at the International Conference, interest centred especially in the time-worn subject of the routes of invasion for the tubercle bacillus. It seems to have been demonstrated that the disease may be contracted by both the respiratory route, and the alimentary route. Though this does not make us much wiser in a practical way, still it is somewhat comforting to know that the respiratory route is less important than it was once thought to be. On the other hand that information is compensated by the importance of the alimentary route.

In connection with his account of the progress made in the preliminary arrangements for the International Congress on Tuberculosis Dr. John S. Fulton the Secretary-General reported that ten distinguished foreigners have consented to participate in the series of special addresses that are to form a part of the program. The names of these eminent specialists follow: Dr. R. W. Philip, Edinburgh; Dr. C. Theodore Williams, London; Dr. Arthur Newsholme, Health Officer, Brighton, England; Dr. C. H. Spronck, Utrecht, Holland; Dr. Karl Turban, Davos-Platz, Switzerland; Dr. Gotthold Pannwitz, Charlottenburg; Dr. Emil von Behring, Marburg; Dr. A. Calmette Pasteur Institute, Lisle, France; Dr. Maurice Letulle, Paris; and Dr. S. Kitasato, Tokyo, Japan.

Dr. Fulton also reported that up to the date of the meeting, the Governors of twenty-three States had lent official auspices to the Congress. This not only insures official representation so far as that many states are concerned, but it insures an active organization in each of these States, that will be interested in the Congress.

The States in which this action has been taken so far, are: California, Utah, Montana, North Dakota, Minnesota, Wisconsin, Illinois, Iowa, Indiana, Michigan, Ohio, Kentucky, Kansas, Tennessee, South Carolina, North Carolina, Maryland, New York, Massachusetts, Vermont, Maine, West Virginia, Missouri.

Reporting on the formation of State committees, the Secretary-General said that such committees had been appointed in nearly all of the States in the United States; that several have already organized and are earnestly at work. He reported also that replies have been received from various foreign countries in reference to the appointment of Committees, and the replies indicate that the countries addressed will be represented in nearly every instance by exhibits as well as by delegates.

Cape Girardeau, Mo., November 18, 1907.

Editor, Journal Missouri State Medical Association.

Dear Sir:—In the proceedings of the Cape Girardeau County Medical Society, published in the November issue, that portion covering insurance, says, in part: "It was also shown that the companies paying the largest dividends to the policy holders were the \$5.00 companies. This included the oldest companies in existence." It should have read "some of the oldest companies," etc. Since that has appeared I have received several letters regarding this subject, the writers asking for figures and the source of my information. This I will try to give, as follows:

An insurance agent visited a physician's office and the physician was offered the position of examiner, but declined because the county society of which he was a member had resolved to examine no applicants for \$3.00, the fee paid by the company represented by the agent. When the agent reported to the company they said "pay him \$5.00." In about six months this agent changed companies and, remembering what the physician said to him about the examination fee, gathered the following figures which appeared in the *Spectator*, an insurance paper, and sent them to this physician.

THE AVERAGE DIVIDENDS PAID BY TWENTY OF THE LEADING AMERICAN COMPANIES FOR 15 YEARS, 1892-1906.

\$5.00 Companies	per cent.	\$3.00 Companies	per cent.
Aetna (Hartford)	12.31	Germania	5.88
Connecticut Mutual	26.56	Home	9.49
Manhattan	3.85	New York Life.....	6.72
Massachusetts Mutual	14.58	Penn Mutual	10.02
Mutual Benefit	17.32	Union Mutual	4.14
New England Mutual. ..	13.60	Washington, N. Y.....	4.03
Northwestern Mutual	15.53	United States	5.56
Pacific Mutual	8.07	Equitable	8.42
Provident Life & Trust... 14.62		N. Y. Mutual	5.63
State Mutual of Worcester 13.32		Phoenix Mutual	9.14
<hr/>		<hr/>	
Average, per cent 13.97		Average 6.90	

It is shown from the home office that the Equitable, New York Mutual, and Phoenix Mutual, have now joined the \$5.00 companies, and some others in the \$3.00 list as mentioned above pay the \$5.00 fee in some localities.

I hope this will be satisfactory to those physicians wishing to know how and where we obtained the figures.

Yours truly,

E. H. G. WILSON, M. D.,
Secretary Cape Girardeau County Medical Society.

A STATEMENT AND AN APPEAL.

The known presence of serious danger to health and life among intelligent people should lead at once to active measures of co-operation

and organization for the purpose of meeting such danger in the most effective manner, and it is because the disease commonly known as consumption is a constant menace to every household that the Missouri State Association for the Relief and Control of Tuberculosis has been formed, legally incorporated, and now solicits the aid of every person in the State in order to make thoroughly effective its work aimed at the overthrow and destruction of this pandemic disease.

If it may be imagined that at some time the Huns, Goths, or Vandals should invade Missouri and slay five thousand of her people every year, besides disabling many times that number annually, scores of thousands of armed men would take the field, and money would be poured out in millions to expel the destroyers. The difference between the ravages of the disease and the visitation of a hostile armed host would be that while the former slays in silence and stealth, the course of the other would be marked by tumult and violence—but the destruction wrought would be about the same, and the losses inflicted by the latter would be more easily recovered from than those incurred through the many months of wasting illness which is the common course of tuberculous disease.

Slaughter and ravage by an armed enemy would be open and spectacular commanding universal attention, while a worse affliction is visited upon the people by a subtle foe whose presence is endured only because of sufferance, ignorance, and inattention on the part of the public as to its nature, manner of spread, and means of control.

But at last public opinion is awakening to a sense of responsibility for this dereliction, and local, State and national organizations are very generally being formed for the purpose of combating the spread and eradicating the sources of this disease in the most comprehensive and thorough manner, and the work already done abroad and in this country is bearing notable fruit in a lessened death list and a decreased sickness rate brought about by a better understanding of the simple principles necessary to be observed in this line of effort.

The chief factors of success in such endeavors are, as experience has shown, clean air in full supply at all times, wholesome surroundings, good food and enough of it, together with the utmost care that every person known or thought to have consumption shall so dispose of that which he coughs up or spits out that no one else may be harmed by it.

The means by which this needed knowledge may be brought fully before the people are:—

- (1.) Public lectures, addresses, demonstrations, and exhibitions;
- (2.) The public press, with its wide influence as an educator;
- (3.) The free distribution of leaflets, circulars, etc., setting out in plain terms what consumption is and how it can be both prevented and cured;
- (4.) Sanatoriums, dispensaries, etc., where affected persons may

be taught the lessons how to get well and keep well and avoid giving the disease to others;

(5.) By the instruction of school children as to how this form of danger can be avoided;

(6.) Through the cautionings and teaching of physicians, nurses, and others having influence within the domestic household how such risks may be prevented.

* In order to conduct a war successfully against tuberculosis money is needed, as well as in a campaign against an armed enemy, and the value and influence of expenditures against communicable diseases can now be demonstrated by unimpeachable statistics as has already been shown in cities and countries that are most advanced and most liberal in this direction.

The plans of the Missouri Association for the Relief & Control of Tuberculosis contemplate the formation, as speedily as possible, of local organizations in every town and county in the State, these bodies to be constituted of the most active, intelligent, and progressive members of their several communities, including both sexes and embracing all recognized callings and professions, and through these organizations to strive to instruct the people by all available means, as before indicated.

This work, if it be thoroughly done, together with clerk hire, printing, postage and miscellaneous expenses will call for the expenditure of a considerable sum of money, and it has been estimated that \$10,000 can be wisely spent in this manner during this year and next year, and therefore an appeal is earnestly made for funds for this purpose.

As before intimated if the present wastage and sacrifice of human health and life were marked by military violence and bloodshed there would be no question of ample financial means being forthcoming at once, and many considerations—humane, economic, civic, and personal—urge a liberal public support of an undertaking that has within it the assured promise and potency of deliverance from this great plague; as, with the sum indicated available, there is no doubt that a substantial reduction could be made in the death-rate from tuberculosis in Missouri within a few years, with a corresponding decline in the amount of sickness from this cause and these results could and would be amply evidenced by impartial official records and figures.

Life membership in this Association may be secured by the payment of \$100, but contributions in any amount will be welcomed, and may be sent to Robert J. Newton, Secretary, 625 Locust St., St. Louis, Mo.

GEORGE HOMAN, M. D., President.

St. Louis, November 1st, 1907.

COUNTY SOCIETY NOTES

ADAIR COUNTY MEDICAL SOCIETY.

The Adair County Medical Society held its regular November meeting at Brashear, November 14th.

The proposed open meeting with program on tuberculosis was further discussed and the committee on arrangements continued.

Dr. Hanks presented two clinical cases, one a large fibroid uterus and the other a gall bladder case.

Dr. Barnes read a paper on diphtheria which was discussed by all members present.

The next meeting will be held at Kirksville, in December.—E. C. GRIM, M. D., Secretary.

CALDWELL COUNTY MEDICAL SOCIETY.

The Caldwell County Medical Society met at Breckenridge on October 9th. The following were present: Drs. J. A. Waterman, C. O. Dewey, O. O. Meridith, W. M. Duffie, G. W. Goins, Tinsley Brown and W. T. Lindley.

Dr. C. O. Dewey read a paper on "Scarlet Fever" and Dr. J. A. Waterman presented a paper on "The Relation of the Country Doctor to the Specialist". Both papers were well received and thoroughly discussed.

Dr. Lindley made a verbal report of a case of abortion and Dr. G. W. Goins reported on the use of morphine-hyoscine-cactine anesthesia.

The Society voted \$6.25 to the use of the State Tuberculosis Society.

The next meeting will be held in Hamilton in January, 1908.—TINSLEY BROWN, M. D., Reporter.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

The Cape Girardeau County Medical Society held its regular monthly meeting at Cape Girardeau, November 2nd. Eleven members were present.

Dr. G. B. Schulz reported the following surgical case from practice: Removal of malignant growth of the breast, with photographs illustrating the condition before and after the operation; case of sarcoma of the lower jaw, with presentation of pathological specimen and photographs; papilloma of the cervix uteri, with pathological specimen.

Dr. W. E. Yount reported several eye cases from practice. He emphasized the importance of persons affected with eye trouble going

to some one that knows the anatomy of the eye and has studied refraction, and not visit the department stores and traveling charlatans where they attempt to fit glasses.

Dr. Cunningham reported a case of removal of a cataract, with good result; the patient is now able to read with a great deal of comfort.

Cape Girardeau was decided upon as the next place of meeting.
—E. H. G. WILSON, M. D., Secretary.

CASS COUNTY MEDICAL SOCIETY.

The Cass County Medical Society held its last regular meeting for the present year at Harrisonville, November 7th. The meeting was the smallest in numbers in two years, owing to sickness in certain parts of the county, and physicians' families were no exception to the general rule.

There being nine members present it was decided to transact general business, elect new officers for the ensuing year and adjourn.

In the absence of the President, Dr. T. W. Adair was selected to fill the office for the evening. The following officers were elected: President, Dr. G. M. Anderson, Pleasant Hill; Vice-President, Dr. M. H. Rhoades, Austin; Secretary-Treasurer, Dr. R. P. Yeagle, Pleasant Hill; Reporter, Dr. R. P. Yeagle, Pleasant Hill; Delegate, Dr. A. R. Elder, Harrisonville; Alternate Dr. W. F. Chaffin, Raymore. Dr. H. Jerard was re-elected on the board of censors.—W. F. CHAFFIN, M. D., Secretary.

COOPER COUNTY MEDICAL SOCIETY.

The Cooper County Medical Society met in Boonville, on Tuesday, December 3rd.

Members Present: Drs. F. R. Smiley, R. L. Evans, P. L. Hurt, A. L. Meredith, J. S. Parrish, J. R. Lionberger.

The election of officers for the ensuing year resulted as follows: President, Dr. R. L. Evans, Boonville; vice-president, J. S. Parrish, Pleasant Green; secretary-treasurer, Jno. R. Lionberger, Boonville; Delegate to State Convention, Dr. A. L. Meredith, Wooldridge; censor for three years, Dr. F. R. Smiley, Boonville.

Following the election of officers clinical cases were presented by the members and several hours were consumed with the presentation and discussion of cases.

Upon motion the Society resolved to have the meeting of January preceded by a banquet, and the Secretary was instructed to notify the members of the meeting and banquet.

The Society then adjourned to meet January 8th, 1908.—Jno. R. LIONBERGER, M. D., Secretary.

THE GASCONADE-OSAGE-MARIES COUNTY MEDICAL SOCIETY.

Will meet in Bland on December 12, 1907, afternoon and night sessions.

The following program has been arranged:

Personal experience in typhoid fever.—Dr. I. M. Owens, of Beaufort.

Personal experience in Pneumonia.—Dr. Frederic Aufder Heide, of Drake.

Refractions and how to refract.—Dr. J. J. Ferrell, of Owensville.

Gun shot wounds.—Dr. T. C. Leach, Feuersville.

Osteomyelitis.—Dr. J. E. Jose, of Belle.

Corea.—Dr. J. E. Neeley, Vancleave.

Hysteria.—Dr. S. J. Terrill, Meta.

Post mortems.—Dr. J. J. Radamacher, Meta.

Advantages and disadvantages of a country practice.—Dr. R. E. Breuer, Red Bird.

Microscopy as an aid in diagnosis.—M. E. Spurgeon, Red Bird.

Electricity in medicine.—Dr. W. F. Byler, of Koeltztown.

Treatment of a bad cold.—Dr. John Engelbrecht, Stonyhill.

The Doctor, a day laborer, or a contractor.—Dr. John D. Seba, of Bland.

The program will be interspersed with clinics by the various members.—JOHN D. SEBA, M. D., Secretary.

GENTRY COUNTY MEDICAL SOCIETY.

The Gentry County Medical Society met at Albany on November 5th, holding an open session.

Dr. J. W. Conard was recommended to the board of directors of the tuberculosis sanitarium at Mount Vernon for examiner for Gentry County.

Dr. J. N. Barger, of Darlington, read a paper on "General Surgery for the General Practitioner," giving many good points, especially in Colles fracture by putting the long splint on back of hand instead of palm, thus reducing swelling from retarded circulation. Dr. Benj. Davis of Albany had an excellent paper on "Tuberculosis and its Sanitary Treatment and Prevention." We need more such papers and especially to the public. Dr. G. H. Hunt of Albany demonstrated some chemical test of the water of the mineral springs of Albany, and advocated a public sanitarium at Albany with hospital advantages for surgical cases.

The discussion of the papers brought out some good thoughts and the meeting was enjoyed by all.

It being the regular yearly meeting for election of officers the following were elected:

President, Dr. J. N. Barger, Darlington; Vice-President, G. W. Whiteley, Albany; Secretary-Treasurer, Dr. Benj. Davis, Albany.

Dr. Benj. Davis of Albany and Dr. C. F. Forbis of Garah were elected members of the Society. After the annual address of the President was read the society adjourned. The next regular meeting will be held on the first Tuesday in February.—G. W. WHITELEY, M. D., Councilor for 3rd District.

HARRISON COUNTY MEDICAL SOCIETY.

The Harrison County Medical Society met in regular quarterly session at Bethany on October 25, 1907, with a good attendance of its members. This was an open meeting and was attended by a number of citizens who are interested in our work.

The program for this meeting was along the line of Sanitation and the following papers were read and discussed with much interest:

“Sanitation—What is it? What Has it Done?”—By Dr. C. A. Mitchell.

“The Value of Proper Sanitation.”—By Dr. J. H. Morroway.

After the discussion of these papers the Society proceeded to the election of officers for 1908, when the following officers were elected.

Dr. W. H. Wiley, of Ridgeway, president.

Dr. F. H. Broyles, Bethany, vice-president.

Dr. J. H. Morroway, Ridgeway, secretary and treasurer.

The society then adjourned for supper, to meet again at 7:30 p. m.

At the evening session the following papers were read:

“Proper Sanitary Construction of Churches, School Rooms and Assembly Halls.”—By Dr. A. H. Vandivert.

“Statistics of General Hygiene and Sanitation.”—By Dr. G. E. Gwinn.

“School Room Sanitation.”—By Prof. Mark Burrows.

Rev. E. B. Reed and Elder T. J. Golightly took an active part in the discussion of these papers.

Among the distinguished persons present were Rev. E. P. Reed, Elder T. J. Golightly, Judge G. W. Wanamaker, Hon. W. H. Leazenby, County Attorney, Miss Lillian Neville, County School Superintendent of Schools, and Prof. Mark Burrows, Superintendent of Bethany High Schools.

*The society is under obligations to Judge G. W. Wanamaker and the members of the bar for adjourning court which was in session, from 3 p. m. Friday to Saturday morning, so we could have the use of the court room for our meeting.—F. H. BROYLES, M. D., Secretary

HOWARD COUNTY MEDICAL SOCIETY.

The Howard County Medical Society met in regular session at Fayette, on November 1st. The following members were present: Drs. Wright, Richards, N. E. Smith, Hume, W. Scott Thompson, A. B. Burguin and C. W. Watts.

Drs. Wright and Richards presented a very interesting case of Tabes Mesenterica. Dr. Thompson presented a case of Psoas Abscess,

in a girl 9 years old. Dr. Wright presented a case of Conjunctivitis.

Dr. Guilford B. Gallemore was elected to membership.

The secretary made his annual report for 1907, which was received and adopted. The work of the secretary was highly commended by the members.

The election of officers for 1908 resulted as follows: President, Dr. J. Y. Hume, of Armstrong; 1st vice-president, Dr. A. B. Burguin, Fayette; 2nd vice-president, Dr. T. C. Richards, Fayette; secretary-treasurer and reporter, Dr. C. W. Watts; board of censors: for 3 years Dr. T. B. Fleet; for 2 years Dr. Wright; for 1 year Dr. N. E. Smith.—C. W. WATTS, M. D., Reporter.

JASPER COUNTY MEDICAL SOCIETY.

The Jasper County Medical Society met in regular session at Joplin, on November 9th. The following members were present: Drs. Shelton, Matthews, Harutum, A. B. Clark, J. W. Clark, Barnett, Neff, S. H. Miller, Lanyon, Taylor, James and Donohoo. Visitor, Dr. J. B. Taulber.

Dr. A. B. Clark read a paper on neuralgia. In the discussion Dr. Neff stated that Dr. Clark did not dwell sufficiently long on the most severe form of neuralgia, trifacial, which is at times the most unsatisfactory to treat. Dr. Neff stated that Dr. Ochsner, of Chicago, treated neuralgia by injecting 70 per cent. alcohol into the nerve.

Dr. J. W. Clark said he used gelsemium with good results. He described the twisting operation in removing the nerve, in which the mortality is practically nil, whereas one in twenty dies in removal of the Gasserian ganglion.

Dr. Barnett uses the saturated solution of magnesium sulphate with good results. Dr. Lanyon uses tr. aconite. Dr. Clark closed the discussion.

Dr. Lanyon exhibited a fetus of one month's gestation. Dr. Neff moved that the society have the banquet at the annual meeting to be held the first Tuesday in January, 1908, and that the ladies be invited to attend. Motion carried.

The committee on program was instructed to invite and secure, if possible, some prominent physician to deliver a lecture on internal medicine at the annual meeting. Dr. Mathews suggested Dr. Allen of Liberty as being the man for committee to secure.—R. M. JAMES, M. D., Secretary.

JEFFERSON COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of Jefferson County Medical Society was held in De Soto, October 22nd, 1907. Some excellent papers were read and discussed.

The society will have a call meeting before the close of this year, as our next regular meeting will be in January, 1908.—R. E. DONNELL, M. D., Secretary.

LEWIS COUNTY MEDICAL SOCIETY.

The Lewis County Medical Society met in regular session at the Court House in Monticello, Oct. 31st. The following members were present, Drs. J. C. Brown, T. F. McGlasson, T. P. Wiseman, Wm. L. Ellery, P. F. Cole, J. B. Marchand, A. A. Perry.

Dr. Wiseman, made a short talk on scabies. The discussion was opened by Dr. McGlasson; Drs. Brown and Marchand also took part in the discussion.

Dr. McGlasson reported a case of volvulus. Dr. Perry, also reported a case. Dr. Ellery, reported an interesting case of obstruction of the bowels due to adhesions. Operation was performed the adhesions broken up and the patient recovered in a few days. Discussion by Drs. Brown, Cole and Perry. Dr. Schofield, being absent his paper on diphtheria was not read, but the President of the Society, Dr. Brown, made a few remarks on the subject; that paved the way for a discussion in which all members present took an active part, every one advocated antitoxin in large doses. The treatment of pneumonia was also mentioned.

Dr. Cole read a paper on the prescribing of Official and National Formulary preparations. He exhibited a few samples of preparations.

On motion the society adjourned to meet in Quincy, Dec. 4th, 1907.—PAUL F. COLE, M. D., Secretary.

ST. JOSEPH-BUCHANAN COUNTY MEDICAL SOCIETY.

At the regular meeting on Wednesday evening, October 23, Dr. W. F. Kuhn, Superintendent of State Hospital Number Two, presented an interesting paper upon the physical basis of insanity, illustrating his talk with tabulated blood count examinations, showing the condition of the blood in the various classifications of the disease. Discussed by Drs. Woodson, Kenney and Carpenter.

Dr. Charles Wood Fassett read a paper on the anti-tuberculosis movement in Missouri, in which he described in detail the work accomplished thus far in the direction of preventing the spread of tuberculosis, and urging that a committee be appointed to take action immediately for the organization of an auxiliary society in Buchanan County to co-operate with the state organization. He gave a brief description of the State Sanatorium recently at Mr. Vernon, outlining its purposes and plans. He also urged the local board of health to use greater diligence in the inspection of houses where consumptives have resided or died, and to insist on the regulation of all those known to have tuberculosis, supplying them with printed instructions, teaching them to avoid infecting other members of the family. Discussed by Drs. Wallace, Mumfreville, Gleaves, and McGill.

A communication was read from Dr. C. A. L. Reed, Chairman of the National Committee of Legislation, announcing the appointment of Dr. C. W. Fassett, as a member of the auxiliary committee, representing the Buchanan County.—CLARENCE PASSERT, M. D., Secretary.

STODDARD COUNTY MEDICAL SOCIETY.

The regular bi-monthly meeting of the Stoddard County Medical Society was held at Dexter on Wednesday, Nov. 6th. Members present were: Drs. Allen, Ashley, Douglas, La Rue, Moore, Hill, Slayden, Vernon and Walters. Visitors Dr. Brinttinger, D. D. S. Dr. Chas. E. Walters of Dexter was elected to membership.

This being the annual meeting the various officers and committees made their report for this year, and other routine business was transacted. A resolution was adopted to print all names of members of the Society in the county papers. The visiting members were entertained at the Jeffersonian Hotel from 12:30 to 1:30, after which business was resumed.

The following officers were elected for year 1908. President, Dr. Ed. Moore, Bloomfield; Vice-President, Dr. J. L. Slayden, Dexter; Secretary, Dr. John Ashley, Bloomfield; Treasurer, Dr. Geo. W. Vernon, Dexter; Reporter, Dr. Jno. H. Douglas, Dexter; Member of Board of Censors, Dr. H. La Rue, Dexter; Delegate, Alternate Dr. A. D. Hill, Dexter.

Dr. La Rue presented a very interesting clinical case which was examined by all present, and discussed at considerable length.

Dr. John Ashley presented a paper on "Malpractice From the Doctor's Standpoint." The paper was discussed fully and at considerable length; it was unanimously recommended to the Journal for publication.

The Society adjourned to meet in Dexter the first Wednesday in January, 1908.—GEO. W. VERNON, M. D., Reporter.

NODAWAY COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Nodaway County Medical Society was held at Maryville, Mo., on the afternoon of November 12, 1907. Those present were: Drs. C. W. Kirk, L. E. Dean, G. A. Nash, H. L. Saylor, C. E. Frank, C. F. Howell, J. A. Larrabee, M. M. Polard, H. C. Goodson, D. G. Smith, A. B. Allen and J. H. Todd.

The following scientific papers were read: Lobar pneumonia, by Dr. C. E. Frank. This was a good paper and provoked free discussion by the members present.

The postgraduate course of study for our county medical society was then taken up and after free discussion was on motion of Dr. L. E. Dean enthusiastically adopted as the basis of our future programmes.

Adjournment.—H. L. SAYLER, M. D., Secretary.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF OCTOBER 25.

On motion the rules suggested by the Library Committee were adopted. A petition received from fraternal life insurance societies to reduce examination fee was read; on motion this matter was received

and filed away to be acted upon when more members were present. On motion it was decided that the Greene County Medical Society should tender a banquet to the Southwest Missouri Medical Society on November 7.

MEETING OF NOVEMBER 7.

The Society met in special session in the parlors of the Colonial Hotel, Springfield. After a short session of the Southwest Missouri Medical Society, the meeting adjourned to the banquet hall where the Greene County Medical Society had arranged a banquet. Dr. Boyd, President of the Greene County Medical Society, made a few appropriate remarks after which, acting as Toast-master, he called upon Dr. Miller, of Joplin, Drs. Smith, Camp and J. W. Williams of Springfield, Dr. Shuttee, of West Plains, Dr. Tefft, of Springfield, Dr. Pearse of Kansas City, Drs. Fulton, Nixon, Terry and Rienhoff of Springfield. All these gentlemen responded with appropriate remarks.

MEETING OF NOVEMBER 22.

A communication from the Secretary of the State Association concerning a meeting of Secretaries and Councilors was read. On motion the Secretary was instructed to write for information as the Greene County Society would probably want to take part in such a meeting.

On motion the society voted 25c per capital for the distribution of literature about tuberculosis among physicians.

Dr. J. E. Dewey read a very carefully prepared paper on "Anaesthetics and their Administration". He said the history of the practical use of anaesthetics is modern, although their occasional use dates from ancient times, even from the 1st Century. The absorption of an anaesthetic from the lungs is due to the difference in pressure between the anaesthetic and pulmonary blood stream; it is usually a stimulant up to a certain point.

Nitrous oxide produces a slight duskiness due to a lack of oxygenation; this can be prevented by admitting more oxygen. Primary respiratory arrest may occur but primary cardiac arrest is extremely rare.

Chloroform is losing ground; it has in some instances a distinct cardiac paralyzing effect; fatalities usually occur in the early stage of anaesthesia, so its toxic effect cannot always be gauged by the amount used.

Ether is the anaesthetic most generally used at the present time for routine work; it has the advantage that in that practically all cases of respiratory embarrassment can be dealt with before becoming serious.

Nitrous oxide gas properly administered is the anaesthetic for minor operations; of chloroform and ether the statistics show ether to be the safest where the lungs are normal; in dental operations nitrous oxide is the best.

The preparation of the patient is of much importance so as to have the nervous system quiet. The paper was fully discussed.—J. L. ORMSBEE, M. D., Secretary.

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION

Volume IV

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Number 7

ORIGINAL ARTICLES

STRICTURE OF THE RECTUM.*

BY W. J. MCGILL, M. D., ST. JOSEPH, MO.

The object in presenting this paper is not so much to present something new as to call the attention of the profession more particularly to this condition and its treatment, and to insist upon an early examination in all cases of suspected stricture, in order that suitable treatment may be inaugurated in time to relieve this condition before symptoms of obstruction exist.

A stricture of the rectum is a narrowing of the lumen of the bowel from any cause; it may result from contraction or from mechanical pressure outside of the bowel, caused by an enlarged prostate, a dislocated uterus or a tumor. Strictures may be broadly classed as congenital, neoplastic, spasmodic and inflammatory. They are spoken of as to their shape as annular, valvular, tubular and linear; they are also spoken of as benign and malignant strictures, but Crips says that every stricture, if left alone, eventually results fatally; if not from the disease itself, from the symptoms that follow in its wake and shorten life.

Stricture of the rectum is usually located in the lower portion, though no part of the rectum or colon is exempt; but it is usually found within $2\frac{1}{2}$ inches of the muco-cutaneous junction. Stricture is but rarely found in the young. It is the exception to find a case of stricture in a person under 30 years of age. Women are much more prone to stricture than men; one reason is that they are more subject to constipation, and the rectum is often damaged from the pressure of the child's head during labor.

Etiology.—The rectum is more frequently the site of stricture than any other canal opening upon the surface of the body; this is dependent upon its anatomic arrangement and function which constantly exposes it to injury and stretching, and also to the presence at all times of pathogenic bacteria; also, its relation to adjacent organs renders it particularly liable to infection from diseases of these organs.

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

Congenital stricture frequently is not observed until later in life, when on account of change of food and habits, the patient's stools become more solid and difficulty in the passages begin to be felt. Patients assume that the condition is due to constipation and pay little attention until the necessary straining produces fissure, hemorrhoids or other inflammations of the rectum or anus. These cases can give no history of any rectal trouble other than that of gradually increasing constipation. Many of them will be able to recall the fact that constipation has existed from early infancy. In these cases, gradual dilatation will usually effect a cure.

Neoplastic stricture. The rectum may be obstructed by a new growth inside of it or within its walls. These growths may be malignant or benign. Malignant growths obstruct the rectal caliber by protruding into it, but they also narrow it by a fibrous contraction of the walls of the gut. When malignant growths have once been established, total extirpation offers the only ground of hope for the patient and the stricture is always included in this.

Spasmodic stricture. Under this head two conditions have been described which are entirely dissimilar. In one there is stricture in which there is no organic change in the walls of the rectum. It consists in a spasmodic contraction of the muscles without any actual shortening. In the other a condition is described in which organic change and permanent constriction of the tube is produced through persistent spasmodic contraction, resulting in shortening and fibrous transformation of the muscular fibers involved. In this class of cases, forcible or gradual dilatation will usually give relief.

Under the head of inflammatory stricture, I will include strictures due to simple, tubercular, dysenteric and syphilitic inflammation. The simple type comprises diffuse inflammatory, cicatricial and peri-rectal strictures. Diffuse inflammatory strictures consist in an inflammatory or fibrous deposit beneath the mucous membrane.

In all inflammatory strictures, whether simple, tubercular or syphilitic, the process must involve the tissue beneath the mucosa. Ulceration of the mucosa or injury to the mucous membrane alone, will not produce a stricture, and for this reason it is rarely if ever caused by simple catarrhal diseases.

Cicatricial stricture, if we exclude those which follow surgical operations, is not of very frequent occurrence. Whenever the normal surface membrane is restored without intervening fibrous tissue, no cicatrix can be said to exist.

Phlegmonous and gangrenous ulceration, such as results from diffuse gangrenous peri-proctitis, may result in a cicatricial stricture of the rectum. Operations in which considerable areas of the rectal tissue have been removed and healing by granulation takes place, will also cause a stricture, such as Whitehead's operation and excision or resection of the rectum.

Peri-rectal strictures are those which develop from conditions outside the rectum. Displacements, enlargements and tumors of the uterus, ovaries, bladder and prostate or other pelvic organs may cause obstruction in the rectum or sigmoid by pressure, but these are not true strictures. Tuttle reports one case of absolute occlusion of the rectal canal due to extrauterine pregnancy.

Local or general peritonitis may produce rectal stricture due to adhesive bands passing across the rectum.

Tubercular stricture of the rectum is denied by some; this is largely on account of the fact that tubercular ulcerations are so rarely primary and when they occur in persons who have already developed the disease, death usually results before healing takes place. The consensus of opinion of the best authorities is, that tuberculosis may result in the formation of true fibrous stricture of the rectum, without the ulcer having healed and that around every tubercular focus there is a fibrous wall tending to limit its extension. The fibrous deposit which causes the stricture is inflammatory, but that inflammation is caused by localized tuberculosis.

Syphilitic strictures. Experience and widened observation have established the fact that a large number of patients suffering from stricture have been the victims of syphilis, and it is now generally admitted that syphilis is one of the potent causes of stricture. Tuttle expressed his positive conviction that all syphilitic strictures are preceded by ulceration.

Microscopic examination of syphilitic stricture of the rectum shows that the condition consists in a chronic inflammatory deposit characterized by nodular or gummatous formations around the blood vessels, and distinct endarteritis. The fibrous development of the stricture itself differs in no other way from those strictures due to simple traumatism, and infective ulcerations of the rectum. There has been no histological examination of an ano-rectal syphiloma in its early stages, or if so, I have been unable to find a record of it, and Tuttle maintains that no stricture of this type has been seen by him in which the probability of previous ulceration of the rectal wall could be eliminated; and that all of his cases which had suffered from this condition were either ulcerated at the time of examination or gave a history of previous discharges of blood, mucous or pus from the rectum, showing the inflammatory nature of the process. It is my firm belief that the rectum and anus should be examined in the secondary and tertiary stages of syphilis to see if there is any evidence of ulceration, for many cases of syphilis develop a diarrhea and discharge of mucous during the secondary stage which are generally attributed to the mercuric remedies administered, when in fact, they may be the result of mucous patches or ulcerated process in the rectum itself.

Under the influence of mercury these symptoms disappear, the ulcers in the rectum heal and the patient supposes himself well. The

discontinuance of the treatment often results in the reestablishment of the pathological process in the submucous tissue along the arteries and veins in the shape of minute gummatous deposits around the vessels and muscular walls as a hypertrophy of the unstriped muscular and connective tissue fibers which lie between them. Here there are two distinct processes; one a specific involvement that extends in the line of the blood vessels, the other a purely inflammatory condition that extends in the line of the submucous, muscular and fibrous tissues. This submucous inflammation set up by the original ulcer and continued by hard fecal passages, and the presence of abnormal gummatous deposits is really the cause of the contracture and forms the true fibrous portion of the stricture.

Pathology. In studying the pathology of stricture there are several points to be observed; for changes will be found not only at the stricture itself, but both above and below and in the surrounding parts. A stricture which is not the direct result of a deposit of new material in the rectal wall, as in cancer, will be composed either of cicatricial tissue, such as is found in other parts of the body, or else hypertrophied connective tissue which is firm and dense, and creaks under the knife on section. All of the connective tissue in the rectum at the diseased point is increased in quantity and this accounts for the increased thickness of the rectal wall. The mucous membrane at the seat of the stricture will generally be found destroyed and replaced by granulation tissue on this fibrous base which bleeds easily when irritated. Above the stricture will be found a dilatation of the bowel and hypertrophy of the mucous membrane. Later the mucous membrane, due to irritation from retained feces, will show all the stages of ulceration, from simple congestion at some points to a complete destruction in others, and an exposure of the muscular tissue beneath.

The ulcerative process may extend for several inches up in the bowel. The wall of the bowel above the stricture may be as thin as paper in spots, and at such points perforation may take place. Kelsey reports two such cases. Abscesses are always liable to occur in the neighborhood of the stricture which accounts for the numerous cases of fistula in this disease.

Symptoms. These may be grouped under two heads; those due to ulceration and those due to mechanical obstruction. In most cases the signs of mechanical obstruction will be preceded by those of ulceration which caused it. The one positive sign of stricture is the obstruction. This may show itself in several ways; generally at first by alternate attacks of constipation and diarrhea. I do not lay much stress on the shape of the stools as a diagnostic point. A very close stricture may be located very high up in the rectum or sigmoid and feces may be reformed in the rectum below and be passed normal in size.

After a stricture has existed for some time we have intestinal ca-

tarrh followed by discharges of mucous and blood. These patients are troubled with more or less constant tenesmus, and a desire to empty the bowel that can not be gratified. The diagnosis can be made by digital examination or by the use of the anoscope or proctoscope and a good light.

A stricture should be examined with the greatest care and gentleness, and one must always remember that a diseased bowel may be easily ruptured. For that reason I do not favor the wales bougie for diagnostic purposes. If one is in doubt, I would favor giving the patient ether and make a careful exploration of the rectum high up, and in some cases an exploratory laparotomy may be necessary.

After the stricture has been located, it will often be found difficult to decide whether it is malignant or benign. By careful attention to the history, the nature of the affection can very often be determined. A microscopical examination of a section of the new growth will usually clear up the diagnosis.

Prognosis. So far as a cure is concerned, the prognosis in stricture is usually unfavorable unless the contraction is slight and situated near the anus and uncomplicated by grave constitutional disease.

Such cases are rarely seen by the surgeon on account of the condition not causing sufficient annoyance to cause the patient to seek medical aid. The surgeon cannot be too guarded in his prognosis and should inform patients that they may never be entirely well, but if they are willing to follow instructions for weeks, months or perhaps years, that their lives can certainly be prolonged; that they can be made comfortable and that an apparent cure can be effected in many cases where the after-treatment is persisted in for a sufficient length of time.

Treatment. The treatment of stricture of the rectum is generally surgical. If one believes the stricture is syphilitic, he may use an antisyphilitic line of treatment. The comfort of these sufferers may be increased by giving them principally liquid diet and keeping the bowels very loose. The bowels should move daily without straining if possible. A mild laxative will usually be found sufficient, such as rochelle salts or the various laxative mineral waters. The administration of an enema of warm water through a rectal tube will often give the patient great relief. The general health of these patients should be supported in every way by good tonics and codliver oil when it is well borne. The surgical means at our command are dilatation, internal proctotomy, external proctotomy, excision, colostomy and anastomosis around the stricture.

Dilatation either alone or in connection with incision is one of the most reliable agents for the treatment of stricture. The dilatation should be gradual stretching, not forcible divulsion. Nothing is productive of more evil than forcing a bougie through a stricture when the instrument is too large to be passed without pain and violence, and

no good is ever accomplished in this way. A size should be selected which will pass through the stricture without force, and one which may be left in place some time without pain. In this way absorption of the stricture tissue may be caused and result in great benefit. The introduction of an instrument that causes great pain, will soon cause so much irritation as to render its use impossible, but with gentleness and time most non-malignant strictures may be greatly benefitted.

Internal proctotomy is simply a division of the stricture tissue by an incision in the median line posteriorly; the cut being deep enough to completely divide all the fibrous tissue. I have never performed this operation and consider it very dangerous on account of the wound not having proper drainage, thus increasing the danger of infection.

The external or complete operation divides the stricture and all the tissues below to the anus and back to the coccyx, including the sphincters, thus allowing drainage and avoiding the dangers of septic peri-proctitis. This is my favorite operation for non-malignant stricture. Care should be taken to make the incision in the posterior median line well above the stricture. The after-treatment consists in irrigations, passing a bougie daily and packing a small strip of iodoform gauze loosely in the wound to cause healing from the bottom and to effect drainage.

Colostomy is applicable in that class of cases where the stricture is malignant or inoperable from any cause. The artificial anus should be established in the left inguinal region and it can be closed later, and the anus restored to its natural site, should the surgeon be able to perform excision successfully at a later time. A colostomy relieves the patient of the pain and difficulty of having an evacuation, and they often quickly regain strength.

Tuttle advised bold excision of the rectum above the point of stricture in cases of malignancy, and bring the rectum down and suture it to the anal margin, or should this not be possible make an anus in the sacral region; while this is a bold procedure and one not without danger, yet it is the one procedure that offers any hope to the patient, and I believe, after the condition is thoroughly explained, if the patient elects to have it done, that it is the duty of the surgeon to perform a complete excision, even to removing a portion of the neighboring organs, should they be involved in the growth.

Tuttle reported a case at the American Proctological Meeting in 1904 where it was necessary to remove the rectum and a large portion of the bladder, and the patient made an apparent recovery and was still alive and in good health four years after the operation.

Intestinal anastomosis around the stricture is applicable when the disease is high enough in the rectum to permit of making a lateral anastomosis between the gut, above and below. This is in many re-

spects an ideal treatment. The operation was originated by Baker and consists in forming a new channel around the stricture by folding the gut immediately above the constricted portion of the bowel down over the stricture and anastomosing with the rectum, just below the narrow part of the gut; then at a subsequent operation, clamping away the septum that has been formed by the rectal wall. This method has not been very extensively employed owing to the small number of strictures that are suitably located for it. Now as to the relative value of the different operations, no one method is entirely satisfactory. The dangers of sepsis and hemorrhage in internal proctotomy would contraindicate its use in most cases.

Complete proctotomy is less dangerous but has the disadvantage in resulting in prolonged ulceration and incontinence for an indefinite period, but in spite of this it is the least dangerous method for the radical cure of non-malignant strictures; but to obtain the best results from this operation, it must be followed by the use of the bougie indefinitely.

Many favorable results have been reported from excision of the rectum for non-malignant strictures, but in the hands of the best operators the immediate mortality is about 16 per cent. with recurrences in about 50 per cent. of the cases; yet in stricture due to malignant disease excision offers the only hope and should be resorted to as soon as a diagnosis is made.

MALIGNANT DISEASE OF THE RECTUM.*

BY F. REDER, M. D., ST. LOUIS, MO.

The solicitude entertained by the surgeon for his patient suffering with a malignant disease of the rectum in endeavoring to obtain for him the greatest comfort following operative intervention, has often brought to the surgeon severe experiences.

When we take into consideration that cancer of the rectum usually runs its course in two years, we feel the severity of the obligation that confronts us when dealing with this disease. It is a great satisfaction to the surgeon to be able to preserve the sphincter muscles in so severe an operation; it is, however, a greater satisfaction to know that the full extent of the cancerous growth has been removed.

In dealing with a cancerous involvement, we deal with a very doubtful and treacherous enemy, and it is to the advantage of both the surgeon and the patient that no leniency be shown when the attack is to be made with the scalpel.

I will not speak of the various operations practised, nor will I speak of cancerous conditions of the early stages when removal can be accomplished without much difficulty, with the resultant continuity of the bowel that closely approaches the normal. I wish to speak of the more desperate cases when the question of life prolongation and the feasibility of operating at all, is the paramount issue.

In my work when called upon to give relief in recurrence, I have often wondered why colostomy has met with so little favor in connection with excision of the rectum. Surely its advantages are many, whereas its disadvantages can be summoned up in the one great objection, and that is, of the patient having the bowel opening on his abdomen. That to me does not speak against the establishing of an inguinal opening when I can feel assured of the good that will result from it.

It is my practice now to establish an inguinal anus in all cases where the involvement is so extensive as to necessitate the resection of the coccyx, or, still more, a resection of a portion of the sacrum for the removal of the cancerous bowel. What reasons have I for favoring colostomy under such conditions? My first reason is this: the avoidance of septic trouble by direct contact of the wound by fecal matter. A second reason for doing so is to permanently direct the fecal current away from a once diseased portion of bowel. We probably regard this condition too lightly in our operations, but when we consider the irritating properties of the excrementitious matter, the frequency with which it passes, and the length of time it may remain in contact with

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this new tissue formation, we cannot wholly evade its possibility as a cause for recurrence.

As a third reason I wish to embody the objection of having the bowels locked up from ten to fourteen days, a routine invariably followed by most surgeons to prevent septic trouble by fecal contact with the wound. Such a prolonged costive state appears to be a serious matter, especially in a patient upon whose face is already pictured the cachexia of the disease from which he suffers. In speaking for the comfort of the patient I may mention another reason—that of wearing a truss or a pad for protection from the escape of fecal matter in cases where the newly formed anus is devoid of any control. I have found this to be a source of much inconvenience to most patients. When we take into consideration the ease and thoroughness with which an inguinal anus can be cleansed, it speaks rather in favor of an inguinal colostomy;—and here I desire to speak of another condition that may greatly add to the discomfort of the patient. It is absolutely necessary that the patency of the bowel be maintained. We know that when the whole circumference of the bowel has been removed, the risk of contraction in the scar tissue which replaces the mucous membrane is great. This contraction forms a most serious difficulty in the after-treatment, and is liable to lead to most unsatisfactory results. The more the connective tissue around the bowel is interfered with, the more profuse the suppuration and the longer the healing, the more marked will the contraction be. To obviate this risk patients must pass a bougie from time to time, and in some instances are compelled to wear a vulcanite tube. Such a tube usually must be worn soon after the operation (about a fortnight), and, except for taking it out when the bowels act, must be retained constantly for months, some patients having to wear it for the rest of their lives.

In two cases coming under my care the passing of the bougie or the wearing of a tube had become so painful that colostomy had to be resorted to.

I have spoken of the advantages of colostomy in connection of rectal excision for advanced circinomatous involvement; now let me speak of its disadvantages.

As stated above the chief objection seems to rest with the patient, i. e., the patient objecting to having an anus upon his abdomen. Much as the wish of the patient in operative procedures must be respected, when it comes to dealing with cancer and the question of life prolongation, the surgeon upon whom this responsibility rests should be the one to decide what is best for the patient. A patient of reasonable intelligence to whom his condition and the operation necessary has been made clear, will usually abide by the surgeon's suggestions. If he does not, it is a good deal safer (for the surgeon) not to operate at all.

An objection to a preliminary colostomy is that it causes loss of valuable time without compensating advantage. It would appear to

me that any patient suffering from cancer of the rectum whose tissue resistance had been reduced to such an extent by the disease so as to render a colostomy inadvisable, would certainly not be in a condition favorable for excision of the rectum.

Another objection is that a colostomy would sap the patient's strength, thereby diminishing his power of standing the more severe operation.

There are conditions arising in cancerous growths of the bowel that almost occlude its lumen, making a thorough evacuation not only impossible but very painful. Such a condition demands a restricted diet, which entails an additional impairment of the patient's vital forces. Does it not seem logical that a daily evacuation such as can be had through an anus praeternaturalis with a liberal partaking of food would be more conducive to getting a patient into a reasonably good condition for operation, than with a restricted diet and a stenotic bowel loaded with fecal matter that can only be removed with much difficulty?

Another disadvantage is claimed by some operators that a colostomy fixes the bowel above, interfering with its mobility, thus preventing it from being efficiently pulled down at the second operation. It is here where I feel that the distinct advantage of a colostomy should be sought.

In an operative intervention necessitating an excision so high as to require the loosening of the sigmoid, the chances for obtaining a happy issue are so remote that it is only in the selected and the most favorable cases that the operation will prove successful. We know of the frequent failures that attend the bringing down of the cut edges of the rectum, and to stitch them in situ around the anus or to the portion of bowel not excised immediately above the sphincter. It seems almost useless, as the sutures are certain to cut their way out, entailing the serious risk of the discharges infecting the wound. We are only too often disappointed in the advantage which suturing the bowel would give in preventing subsequent contraction.

In conclusion I wish to state that much of the success of rectal excision in the advanced stage of cancer depends upon the effectiveness of the measure embodied in the technique to prevent sepsis and I believe that the interest of the patient will be best served by establishing a permanent inguinal anus in connection with excision of the rectum.

The last fourteen cases have given me much encouragement with this combined method. I can say that these patients recovered more promptly and more satisfactorily, and since their recovery have suffered less pain and enjoyed greater comfort than the patients in whom no permanent inguinal anus was established. I can furthermore say that the lives of most of these patients have been prolonged and that operations for relapse have been comparatively few.

DISCUSSION.

Dr. E. H. Thrailkill, of Kansas City: As a rule physicians do not examine rectal cases carefully. Just recently I had a patient with a stricture who had been treated by two physicians without an examination. This stricture was the result of a Whitehead operation for hemorrhoids. I am opposed to this operation in most cases on account of the liability of subsequent stricture.

It requires a long time to cure an inflammatory stricture of the rectum. The patient becomes discouraged and tired of coming for treatment. If we could collect our fee in advance the chances for a cure would be more certain, for then they would come more regularly and more often. If the stricture is within three inches of the anus, much can be done with the fingers and the speculum. If above three inches, it is quite a dangerous procedure to attempt to dilate with instruments owing to the proximity of the peritoneal cavity. In the latter variety I usually perform a posterior linear proctotomy, cutting through both sphincters; I do not fear incontinence, for the incision is parallel with the fibers of the external sphincter, which are attached to the coccyx. I see to it that no pockets are left for the lodgement of fecal crumbs or pus.

In neoplastic strictures, if seen early, I remove through the anus, or do the combined (high amputation) operation. If the growth is very large, with glandular involvement, I do a left inguinal colostomy. I have had two cases recently with complete occlusion and no movement of the bowels for a week. In these cases it was necessary to do a colostomy. I do not recommend this operation where the growth can be extirpated.

Dr. W. H. Coffey, of Kansas City: We know that every true stricture has scar tissue, and it seems to me that it would be a rather difficult matter to dilate scar tissue. I believe about the only thing we can do for stricture of the rectum is to bring it down and excise it. This can be done, providing the stricture is not located too high. We generally find it about an inch or one and one-half inches above the anus. This being the case, we have nothing to fear, provided the peritoneum does not dip down low enough to come below the stricture. The stricture being below where the peritoneum dips down, we can very easily dissect it loose. Excise all scar tissue and suture the healthy bowel to the anus. Now, that is a simple surgical operation providing we do not interfere with the peritoneum. We do sometimes have spasmodic strictures that are oftentimes taken for true strictures. We pass our fingers or instruments against an obstruction; if it is a true stricture it will not relax; continue the pressure for a short time and if relaxation takes place we know we have only a spasmodic stricture to deal with.

Dr. C. F. Roberts of Kansas City: These papers are too good to

allow them to go by without more consideration. I was much interested in the paper on stricture of the rectum, owing to the fact that I have to make examinations through rectum in my work more than men in some other lines of work. I can agree with the doctor in regard to the frequency of syphilis as a cause of strictures, tuberculosis of course being the next most frequent cause; but I think in these cases, as in stricture of the urethra, that probably any continued inflammatory process will produce cicatrization of the tissue. Now, it may be that the essayist will claim that you cannot have gonorrhea of the rectum, but I have seen two cases in the last four years that I am satisfied were true gonorrheal. The men were each under my care for gonorrhea. One of them had piles, and he infected his rectum while treating his piles; and I never saw a more marked case of stricture of the rectum than this man had. He was confined to his bed for ten weeks during the active stage of his trouble. This man passed a great amount of pus from the rectum. He changed his residence to St. Louis, but returned about 28 months after he had left our city, and came for me to examine him to see if there were any bad results of his old gonorrhea. I passed a sound into the bladder, and then began to make an examination of the prostate gland. When my finger entered the sphincter, I came up against something I could not get through. The man was much emaciated, and in fact, I hardly recognized him. I made a further examination, and found one of the most rigid strictures that I ever found in the rectum, and I believe that in this case it was due to the inflammatory process produced by the gonorrhea. The other case was a stricture something the same as this one and I think due to the same cause.

Dr. Stauffer of St. Louis: Some one has said that more cases of stricture of the rectum are reported than observed. This lends some reason to the fact that many reports are given after making a superficial examination. I wish to emphasize especially the importance of a proper examination with the anoscope or proctoscope, without attempting to pass a bougie or finger, however clean either may be. The importance of doing any operative work about those parts in such a manner as to sacrifice as little tissue as possible, can scarcely be over-estimated. This is so in other parts of the body with cicatricial tissue predisposed to strictural or malignant growths. It is so without a shadow of a doubt in cancer of the pyloric end of the stomach, in cancerous conditions of the cervix; and why not the same argument in the rectum? Post mortem evidences in those cases are of little value because at the time of post mortem, the cicatricial tissue is replaced by a large amount of ulceration. When you take into consideration the fact that at least 80 per cent. of the malignant growths of the intestinal tract are found about the rectum, the importance of this is especially evident. I have found that operations involving great sacrifice of tissue, and where the cautery is used too extensively, are the ones that are most likely to produce cicatricial tissue.

One of the gentlemen said he would never do a Whitehead. I think that is possibly going too far, because we do find conditions in which this operation is the only one applicable.

Another reason why we have stricture and malignant growths is the fact that our cases are not carefully followed up after every operative procedure, whatever it may be. Ulcerations that eventually produce strictures and carcinomatous growths, could be avoided in 99 per cent. of the cases, if the cases were carefully followed. In my work at the Missouri Pacific hospital in the last few years, I have found a good many cases of syphilitic stricture, and they have all been from the country. As to the dilatation of the rectum, I would like to enter a protest against the extensive dilatation of the sphincter before any operation. Any undue violence to any part of the body predisposes to infection, or tissue unrest, which is only another term for inflammation. Any great dilatation preparatory to an operation produces a congested condition. Recently I have had a number of cases of hemorrhoids that could be traced to a certain physician who has been dilating first, last and all the time. In cases that come to me from that man now, I almost invariably do the Whitehead operation. There is no need of trying to make a major operation when a minor one will do, and conservative surgery in this part of the body is especially to be commended.

Dr. McGill in closing: I want to say, in regard to the Whitehead operation, that personally I do not favor that operation, for the reason that we have easier methods for the relief or cure of hemorrhoids than that advocated by Whitehead. In regard to nine-tenths of the cases of stricture being caused by piles, I will simply say that does not coincide with my experience, nor the experience of the best surgeons that I have read of and talked to in regard to this condition. It is a well known fact that hemorrhoids may cause stricture. The promiscuous dilatation of the rectum in all cases of stricture might produce great harm. The doctor has been very fortunate in his cases, in that he has had no bad results. I would not attempt such a thing on a great many of the cases that I have seen and the few cases that I have operated on for this condition. Where the stricture is high up, or say above two and one-half inches from the anal margin, I would consider forcible dilatation rather dangerous treatment.

One of the doctors said it was a wise plan to get your fee in advance from these patients. Many of these patients will stop coming to you long before they should if they feel that each treatment is to cost them more money. My rule is to charge a stipulated amount for the work. Another thing, I tell the patient he will have to have a bougie passed, and that it is necessary to keep the parts clean until healed. This may necessitate his coming for quite a number of months. I have one patient who has been making regular visits to my office for seven months, and he may have to come for two months longer. We never get too

much for these cases. It is a class of work that none of us seek for, but it is up to the profession to do the best they can.

That fistula is caused by the stricture is the rule in the majority of these cases, has been my experience. I attribute that to the straining which produces a thrombotic hemorrhoid, and this being neglected, the result is a marginal or ischiorectal abscess, and that being neglected forms a fistulous tract.

As to stricture being caused by gonorrhea, I believe that Gant reported a case of this kind several years ago, and it is a well known fact that patients do suffer from gonorrhea of the rectum; I do not know why it would not cause stricture of the rectum, if there was enough trouble at that point. I have not had a case of stricture of the rectum that I could attribute directly to gonorrhea.

Just a word on the paper on malignant disease of the rectum. I believe that is a class of diseases in which we should pay considerable attention to our patient's wishes in the matter. Malignant disease of the rectum is a very serious thing. A patient cannot live long unless we succeed in removing the entire growth; and sometimes cases that we consider inoperable are given relief for a number of years by excision of the rectum. I believe the condition should be explained carefully to the patients and their friends. The great mortality should be explained to them, and then they should be allowed to choose whether or not they wish to take the chances of excision of the rectum. Tuttle has probably had better results in the operation of excision for cancer, and he says positively that he never denies his patient the operation if the patient so elects. And I believe it is the duty of every surgeon, if he sees that there is a reasonable chance at all for doing the patient any good, to go ahead, if the patients elects to take the chances. Colostomy at best does not give the patient very much hope. They know it is only a matter of a short time that they can live in this condition, and an excision at least gives a patient hope for a short time, and in many cases they may have relief from the condition for a number of years.

Dr. Reder, in closing: I fear Dr. McGill has misinterpreted my idea with regard to what I said about establishing an artificial anus in connection with the excision of the bowel (rectum). I rather expected to be censured to some extent for so emphatic a statement. There are very few authorities that advise the construction of a permanent anus in connection with so serious an operation. I can say that in the last fourteen cases I have been able to afford much relief and I believe prolong life in the establishing of a permanent anus. Secondary operations become less frequent.

SOMETHING OF WHAT WE HAVE, AND WHAT WE SHOULD HAVE, OF MEDICAL LAW GOVERNING THE PRACTICE OF MEDICINE.*

BY C. B. HARDIN M. D., KANSAS CITY, MO.

It is obvious that our subject can be dealt with in a general or local sense; that is, international, national, state, county or municipal. Our time is too short to deal in minutae, and the appended pages shall be devoted to more or less general considerations, applicable to the entire profession of medicine. All medical legislation, may it be assumed, should be the direct or indirect product of medical men, at their dictation or at least by their advice.

It can reasonably be inferred that medical laws, whether state or national, should rest in justification, and their rights to have become laws, upon the foundation of medical ethics. Hence, the national body, the American Medical Association, except in a local or unimportant sense, should form, govern and direct the medical laws of our United States. To this body should we look for suggestions, modifications and amendments affecting the practice of medicine in a general manner: and which should not be infracted by any state, county or municipal law, act or ordinance.

In a more restricted sense, each state should, as it does, exercise the right to enact medical laws peculiarly fitting to its location and other more or less individual condition. As in civil government, so in the medical, each state, county, and, may we say also municipality, the latter by ordinance, should, as above indicated, be privileged to enact law or laws which do not infract those of the national association.

The parentage, therefore, of all general medical legislation, in point of justice, is traceable, or should be, to the American Medical Association. It should be the hub of inquiry, and the hub of delegated privileges, to lesser organizations of our entire country.

In attempts at medical reform or improvements of existing rules governing medical men, where their application affects the whole profession, its influence and approval should be sought.

You could do but little in seeking to pass or modify a law, fitting in character and application to all the states, by an appeal to a lesser organization than the national body. This idea does not preclude individual, municipal, county or state assistance in preparing the steps to be taken, but suggests only that the *edicts* for reform and progress should go to the halls of congress, if they be of national character, as the voice of the national body of American physicians.

As the national association, so the state, to which, in a general

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sense, it is subsidiary, and the same logic applies to the state medical law, as we have briefly attempted to show you, with reference to the national. For instance, all medical law, peculiarly state laws, as to their dictation, framing, etc., and the modification, if of any moment, should originate in, or at least be the product of, the state association, brought before this body by delegated committees having authority over such matters, and from thence proceed to the legislative halls for passage; this affords a *vis a tergo* which cannot be elsewhere obtained.

In the nature of legislative enactments all steps taken, however, either by the national or state bodies, can be only as suggestions or recommendations to the law-making powers in which rests the destiny of any measure or measures presented to them.

If the medical profession were united in effort and in interest, a recommendation from it, if properly arranged and presented, should go far towards insuring the desired legislation.

We think, therefore, that a disunited, factional medical condition, which obtains in our states to a large extent, has much to do in defeating the efforts of medical legislation.

It is certainly an adequate cause to render any request of the legislature of uncertain disposition and destiny by that body.

A lesson for us to learn, it would seem, is, instead of accusing the legislature of being corrupt and in every sense anticipating it and spending so much time and money in bringing to bear political and financial influence on the legislative powers, thus evidencing our incredulity of their fairness and sincerity, and the trust reposed in them. to unify, purify and fortify our forces and their attempted efforts; we believe a greater measure of success would then attend such efforts, and more speedily.

As it is and has been we declare more or less openly that it is necessary to use money, strategy, cunning and everything else but a gun, in our attempts to obtain medical legislation at their hands, which by no means compliments those whose suffrages and influence we seek. Should it require such species of subterfuge to enact needed medical legislation? We should send different representatives to congress and to the legislature, thus purifying the fabric of legislative powers morally and politically.

In assuming that such stringent vigilance is necessary, and, in a sense, forms of what might be denominated legitimate bribery to the consummation of these ends and efforts, it would and does invite and foster the growth of pernicious and despicable elements in the personal character of our law-making powers. The several states, largely for purposes of convenience, have seen fit to delegate certain divisions of medical work to organized boards of health, empowered with a certain degree of authority. Our state board was thus organized in 1883, having first met in the city of Jefferson in that year.

Two of the most conspicuous and important duties of our state

board are its licensing and revoking power to practice medicine in the state, and its superintendency over infectious diseases. In its formation, as perhaps originally intended, it is shorn of all judicial authority.

Its rights are hence administrative and suggestive in character, therefore its scope of authority and powers are scarcely more than those of an information bureau; in some particulars, we should say accusative in nature, not very unlike the duties imposed on our official body called the Grand Jury.

For infractions of its laws it is totally bereft of judicial enforcement of commensurate penalties. Should the accused be contentious and refuse to obey its dictates, in case of a felony, misdemeanor, etc., it is as helpless as an infant to do more than refer these matters to some department of the criminal court. If it could be done it might be well to confer upon this now largely effeminate body, some form of judicial authority; for instance, of the state board, the state attorney constituting a member thereof; of the county, the prosecuting attorney; and of municipal, the police judge. In this manner its decisions and trials would be in a measure final and more expeditiously performed. It has borne an almost absurd legal relation in its license revoking power.

From the inception of the formation of the Board of Health, or nearly so, it has admitted applicants to practice medicine in the state on varying conditions and requirements as the law has changed, all the while with a kind of so-called revoking privilege which hitherto in a very large measure has proven to be an empty complement. The state board has done considerable very commendable work and has tried to do more. Though as before indicated, its revoking power is not, nor has it been, commensurate with its licensing privileges (the cause has been designated, we think, in the foregoing pages).

In our state since, March 12th, 1901, applicants have been required only to pass an examination conducted by the state board, with or without a diploma. This was the law, except in two particulars, until the sitting of the last general assembly. March 21, 1903, the law was amended, not rendering it compulsory for those to undergo an examination who matriculated in some recognized medical college on or prior to March 12, 1901. April 10, 1905, an amendment again was passed, allowing the state board to admit to practice legally qualified practitioners from other states, with equal requirements to the state of Missouri, thus originating a becoming medical reciprocity.

Two bills have been presented to the 44th general assembly by the state Board of Health. Senate Bill No. 124 creates local boards of health throughout the state with specific authority over the spread of infectious diseases, thus perfecting vital and mortuary statistics throughout the state or affording an opportunity for so doing.

Senate Bill No. 123, consists of two amendments to House Bill No. 137, session acts of 1901.

One demands a higher preliminary education and a graduate of a school requiring a four years attendance before applying to the board for license. Nearly all of our states have such requirements; and is only the minimum of that of the American Medical Association. Applicants whose graduation antedates March 12, 1901, must have received a diploma from a medical college which required two years for graduation. The last general assembly passed favorably on this and also the following, rendering such a part of the requirements to practice in our state. The passage of the pure food Law. A measure relative to criminal abortion, constituting it a felony, instead of a misdemeanor; a more liberal financial allowance to the state board, to more effectually and speedily carry forward its beneficent work.

May I say in this connection, we must as a profession seek larger appropriations for the building and support of state eleemosynary institutions for the insane, indigent poor, epileptics, the aged, etc., and which we also would urge should be absolutely under the control of medical authority and supervision, and not partly so as at present. The great argument for this control by the profession is that the proper care of these unfortunates, their separation from the well, etc., would act as a great preventive in the propagation and production of these unfortunates, and in this largely rests our hope of the ideal management of these cases.

Hitherto and even at present this department has not been under medical control, and financial appropriations have been exceedingly inadequate to meet needed and crying demands in these supremely important and humane matters.

Thus the recognition of medical needs by the last general assembly is epochal and to be highly commended for its unusual liberality shown the profession; yet it should only encourage us in the belief that it is but the opening wedge of the reform entering the great reeking mass of medical corruption and parasitism, to be found even in our own great state of Missouri.

Reciprocity between the states of equal requirements should be encouraged, and the national association could well contend for an exaction of such a law on the basis that the whole is greater than any of its parts. Where a state such as Oklahoma, for instance, fails to recognize reciprocity at all, suspicion could easily be entertained of its unfairness and, in a sense, injustice.

Again, it would seem fitting to pass a law requiring every registered physician in the state to maintain continued membership in his county society so long as he desired to remain in the active professional ranks. This would not impose upon him a peculiar injustice nor could it, we think, be construed sumptuary in character. On the other hand it would be the best obtainable and living evidence of fitness for professional recognition and professional respect. Infractions of every species of ethics could be more easily detected and penalties more speed-

ily administered. To impose this taxation on members of the profession could be construed as an annual moral license, much like its analogue in the business world to run a wagon, poll tax, etc., and under peculiar conditions as in other matters, such taxation (in its financial bearing) could and should be remitted.

Several other bills were presented, though not favorably acted upon, as the one relative to patent and proprietary medicines, the Newberry bill relative to druggists filling prescriptions containing a certain amount of alcohol, the embalming of bodies dying from infectious diseases, etc.

Thus, the medical law of Missouri, in a practical sense, is embodied in the duties assumed by the State Board of Health.

In a more local interpretation an expression of the law can be found in the duties delegated the county boards, consisting of the county court judges and an appointed physician by that body, and in a yet more local sense the work is conducted and extended by the municipal or city boards of health, a very conspicuous element of this latter organization being the enforcement of all hygienic or sanitary laws of the city and two miles beyond its limits, notwithstanding it, as the county board, is only a branch and an extension of the duties of the state board.

Appointive positions on the state board should be shorn of politics and political influence, and one seeking to become a member by the aid of political influence should be regarded as disqualified to become a member of the state board. Again, the candidate should be required to furnish the governor with credentials from his county medical society or better still from the association of the state in which he resides, endorsing him as a fit and competent subject for membership.

The duties of the state board are such, when fully performed, as should require its members to be representative in character, morally and professionally.

The expediency of dividing the duties of the State Board of Health has occurred to us, at least as a question, thus creating what might be called a sanitary board having to do with the enforcement of all laws of sanitation as applied to the promotion of health and restriction of the spread of infectious diseases, etc., and another whose duties would lie in the direction of the proper registration of physicians, granting licenses to practice to graduates and licentiates, with also revoking powers, for infractions of medical laws, etc. We would suggest, also, that each member of said boards should receive financial compensation for services commensurate with the work performed and the responsibility of the position held.

In speaking so much of medical law, we desire to impress upon you our full recognition of its powers and limitations. You cannot make a man good by law, and the function of all law lies in the direction of restraining vice and the distribution of justice; and in these ways performs its highest office.

For a moment, may we allude to what can and has been done in our large cities where most of crime is committed, by local boards of health. We wish to refer, in this regard, to the achieved victories in St. Louis very recently under the superb guidance of our state secretary, Dr. Nicholson, aided in counsel by the very able legal representative of the St. Louis Medical Society, Mr. Barth.

Prohibitive steps have been successfully taken against some of the more conspicuous species of flagrant quackery in that city, as the publication of obscene literature, corporation practice of medicine, criminal abortion, etc. The state should feel proud and grateful to these gentlemen for the local work thus far accomplished and much more hopefully attempted.

It has always seemed inexplicably strange to us why the law could not suppress criminal therapeutic suggestions in the publication of which our papers, lay and even religious, abound. We cannot remember a period in the past when the papers all over our country did not have in their columns therapeutic suggestions for women to become regular without pain, describing and assuring the certainty of the vaunted remedy and the ease of its action. This would seem an enduring opprobrium on the horizon of our civilization to have ever allowed this species of published matter to circulate, much less its apparently unopposed continuance. It has made no effort, so far as known, for want of opposition we take it, to conceal its most malignant intention and design.

If we have no law on the statute books of which this species of accessory crime is an infraction our most impending duty as well as most important one, it would seem, would be to put one thereon and speedily make it operative.

Again, it seems something could be done against corporation practice, which in reality is no practice at all, only pretense. The right delegated to a set of mostly incompetents to thus infringe upon the legitimate practice of medicine, being derived from the state, precludes individual or even society interference, and we are somewhat at a loss to know what particular statute grants such privilege, unless it should come under the caption of the law regulating business and manufactures. At any rate, we need the enactment of a new law or an amendment to an existing one to reach and prevent such nefarious infractions on the rights of men.

This idea introduces another broken link in the chain of medical legislation, viz., a definition of the practice of medicine, or rather the want of such. To define what constitutes the practice of medicine in its legal bearing has very largely been referred to judges and juries. This knowledge would be of essential importance in any attempt to attack the various sects, largely psychic in character, which have always existed and thrived in our country.

The recent additions, and those also growing to startling propor-

tions, of these strange orders, make a serious consideration along prohibitive lines of paramount importance. We regard this apparently small duty as one of the most urgent needs in the domain of forensic medicine.

In our efforts to effect medical legislation it should not be a part of it to designate to the people to whom they should extend patronage, when such individuals are sane, have reached the age of discretion, and when their choosing in no way trespasses upon the rights and welfare of others.

Perhaps one of the most conspicuous weaknesses of the law has been to meet adequately the demands to best control the spread of infectious and contagious diseases. Manifestly, to insure the greatest safety to the people in this regard, the methods to adequately meet such would incur irrepressible opposition in sentiment and convenience, temporarily, at least.

We have particular reference to the difficulty if not impossibility of enforcing the safest laws toward the management of such infections as tuberculosis. The great prevalence of this disease in the United States and the long undisturbed liberties allowed its victims would render such demands as registration, placarding their houses, and strict personal sanitary observances, of questionable accomplishment, particularly speedy accomplishment. Its great preventive importance, as we see it, as an aid in relieving those afflicted and protecting others not yet victims, will impel the medical profession, and that soon, to frame suitable laws along these lines and insist upon their rigid enforcement. Most other infections are more or less under legal control, and hence do not stand in such urgent relation to medico-legal attention.

We would again hint at the apparent necessity, and may we say, to us the real necessity, of encouraging the people of our country to a more sanitary disposal of the dead, than that of interment. For reasons obvious to sanitarians, the sentimental barrier to the more hygienic forms, such as cremation, etc., should most probably be removed and the means to be employed to effect such removal must be largely, if not wholly, suggested by the profession of medicine. Optional patronage of the crematory in our country is exceedingly limited and its growth without more or less urgent agitation and stimulation upon the part of the profession, will be very slow and discouraging. Therefore some wise and conclusive legislation to meet sanitary demands in this particular might be opportune, especially of the disposition of the bodies of those dying of infectious diseases.

This incomplete and very fragmentary series of suggestions we trust may meet the purpose we had in view, namely, to offer a slight stimulus to the framing and modifications from time to time of laws medical, assuring us the greatest amount of safety and the least infringement on personal and associate rights.

THE ATTITUDE OF THE PUBLIC TOWARD THE DOCTOR.*

BY H. S. CRAWFORD, M. D., HARRISONVILLE, MO.

The word "Doctor" originated from the Latin word, *docere*, meaning a teacher, or lecturer, one who in ancient times taught or lectured in public upon philosophical subjects. About the twelfth century it began to be used as a title of honor conferred upon persons of great learning, and later the academies and universities were given the right to confer the doctor's degree. The conferring of this title or degree was usually in public, and with great ceremony. It was also customary to test the ability of the candidate by an examination or thesis upon the subject to which the degree particularly belonged. It was not until about the fourteenth century that the degree "Doctor of Medicine" began to be conferred. I gather from what literature I have read upon this subject that the men who bore this title were especially learned in the distinct profession they followed. It occurs to me that in this modern era this honorable title has lost much of its ancient degree of excellence. The promiscuous appropriation of the title "Doctor" has reached such a stage in this country that the public does not have a true conception of the relative standing of the men who bear the title. It is to be regretted that we have schools in some of our large cities conferring the degree of "Doctor of Optics," "Doctor of Osteopathy," etc., much to the confusion of the public mind. It has become a common custom for the travelling venders of patent medicine to appropriate the title of "Doctor" and thus mislead the people, thereby gaining prestige for the sale of their fraudulent preparations. Nurses and midwives too frequently prefix the title "Doctor" to their names, which they do not merit. We have the quacks, who call themselves "herb doctors," "cancer doctors," "bone doctors," "corn doctors," "Indian doctors," "pile doctors," etc. The public, as a generality, rate them as skilled specialists, and are unable to penetrate the disguise of these imposters, hence do not appreciate the wide difference between the regularly licensed physician and the quack; thus the dignity and standing of our profession is lowered.

There are other quacks who attend some recognized medical college, are granted diplomas, obtain state licenses, then enter into advertising and unethical quackery. Statistics show that the medical profession is already over-crowded, and yet we find all kinds of inducements held out by medical colleges to obtain students. Degrees are conferred upon incompetent and insincere graduates who go out and bring disgrace upon themselves and the profession. Competition is so great that unqualified men are unable to succeed, and in order to

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

eke out an existence soon enter the field of the faker. I have been astonished several times recently to find men with diplomas from some of our best medical colleges, and with state licenses, traveling over the country giving side shows, selling soap, perfume, etc., advertising free consultations, guaranteeing cures; and swindling the public generally, usually leaving that immediate locality between two days. Such things as these are greatly to be deplored. Such men should be deprived of their legalized right to piratism. The public press of this country occupies a questionable attitude toward the medical profession. Not only is this true of the daily and weekly newspapers, the periodicals and religious papers, but also of a great number of medical journals. The columns of these papers are filled with glaring advertisements of quacks and patent nostrums. I have counted in one issue of one of the most prominent dailies of the State of Missouri as high as thirty-five advertisements of quack doctors and patent nostrums. Such fake articles as "appendicitis cured without the knife," "A treatise upon piles and fistula, free upon application," "Dr. ——— Women Specialist," "Dr. ——— the Old Reliable." These and many others too numerous to mention are familiar to every reader of our daily papers. These great public educators, for the greed of the almighty dollar, are thus scattering broadcast literature upon poisonous dope and human vultures that makes drug-fiends and drunkards of the people, entangling them in the snares of the "get-rich-quick" schemes, thieves and abortionists. The title "Doctor" does not mean anything any more. The curb-stone quack, who with his box of patent pills, and bottle of alcoholic bitters, glibly harangues a curious crowd with his wonderful cure and ridicules the medical profession, is just as competent in the eyes of the average citizen as the educated physician with a diploma and State license hung conspicuously in his office. It is almost impossible to secure a jury that will convict one of these fellows as the average jurymen thinks the quack has just as good right to practice as the man who has spent from four to eight years preparing himself for his profession. Until recently the doctor was much more highly esteemed by the public.

What, then, we ask, is the cause of the downfall? The following reasons are suggested as being largely responsible for such conditions: First, the lack of organization in the past has fostered strife and contention among the members of the medical profession. The bickerings and quarrels between local competitors, which we all know existed previous to the active campaign for organization during the last few years, served to lower us in the estimation of the public. Second; there are too many medical colleges in existence at the present time. Also too much jealousy and competition among them, in order to obtain matriculants and turn out graduates. The result is that incompetent and unworthy persons are granted degrees that they do not deserve, thereby lowering the standard of the profession. The medical

colleges should have the power to revoke the diplomas of such men. Third; the various county medical associations are not active enough in ferreting out and punishing the violators of the medical laws. This is especially true of the counties in which the large cities are located; they are filled with quacks who advertise fearlessly, and make frequent excursions out to the rural districts where it is easy to find victims. Fourth; our medical laws are too lax, and more stringent legislation is necessary to correct some of the existing evils. It is to be regretted that the State of Missouri authorizes men to practice medicine who never saw a medical college.*

The correction of these evils lies largely within the medical profession. Organization must be pushed; better laws should be enacted; state boards of health, should be removed from politics. Violators of medical and pure food laws should be prosecuted. Medical colleges must be combined, and the requirements for graduation made more stringent. The education of the people along the lines of ethical medicine by the county societies is neglected. I heartily endorse the editorial in the February number of our Journal regarding public meetings once a year of the county and district Society and lectures to teachers and pupils in the public school along the lines of public health and hygiene. Greater freedom and information regarding the attitude of the doctor toward the public health of the country will not fail to give the public a higher impression of the great and noble efforts of the medical profession and a proper attitude towards the doctor.

DISCUSSION.

Dr. Punton, Kansas City: Dr. Hardin deserves much credit for bringing before this society a subject that is not palatable to most physicians, i. e., the mixture of politics and medicine, but I have come to think that they are a very compatible mixture and the less we mix these two the less likely are we to get the legislation we require. It requires peculiar men in our profession to handle political questions satisfactorily. Certain men are thoroughly qualified to handle this side of medicine, others are not, and for that reason I am in favor of having more such papers as Dr. Hardin has read. The State Board of Health is exceedingly limited in power and if the physicians of the state could realize how it is handicapped they might exert more influence than they do in bringing about the enactment of laws that we need. The laws are exceedingly inadequate and to get what we need the matter must be in competent hands; and there are very few doctors who are ready and able to take up these matters and handle them for the profession. The time has come when we can well afford to con-

*[The new medical practice act, which became effective after this paper was read, requires a diploma from a reputable college of four years course, and a high school certificate or its equivalent, before commencing the study of medicine, ere an applicant may take the examination for a license to practice medicine in Missouri.—Editor.]

sider medico-politico matters in a business-like way, just as we consider other questions.

Dr. Frank De Vilbiss, Eugene: I compliment the authors of both papers but wish to speak especially of the first, Dr. Hardin's paper. The doctor covers the subjects on which there is needed legislation but it is impossible to get at all these things in one session of the legislature. There is another difficulty which the legislature comes up against which is that many of these bills are imperfectly drafted. Now the medical practice act of 1901, the Hall medical bill of which we were so proud, was so worded that when the State Board of Health revoked a certificate the man could go on practicing, provided he had received his license before 1901. The average attorney cannot draft these bills so that they will cover every point, nothing being left uncovered. There are so many important points to be covered that it is necessary that a bill be drafted perfectly. In regard to the powers of the State Board of Health, we know they are very limited but the average legislator says they are the lords of the universe and that they can absolutely stop business when they will. This being true, in order to obtain desired medical legislation, it is necessary to consider it from the viewpoint of the average legislator as well as from the viewpoint of the doctor, and have the proposed bill properly drafted.

Dr. B. H. Zwart, Kansas City: While I commend the work done by our legislative committee, I want particularly to refer to that part of the paper which advocated national legislation. The medical profession of the United States is attempting to work in harmony not only in forty-five states but in I do not know how many counties, and to be effective it must be united. When we secure national legislation we will have that which will do most good to the public at large. We must have a head and that head must be a cabinet position. Let us work as a national rather than a local society. Let our state society be an example to other states that we may encourage them.

Dr. T. L. Bradley, Warrensburg: The papers are good, but we read such papers every session and yet we do not take any decided action. We need such laws but we have not recommended anything. If it were taken up at each session and one law or set of laws endorsed by the society, it would have weight. The members of the medical profession are to blame more than any one else for the conditions that exist. The legislators do not know what we want, as a body, and it should be presented to them signed by our society as a body; and they would not so readily be frightened because some man says it is dangerous.

Dr. R. O. Crawford, Eldorado Springs: When you have a quack in your neighborhood all you need to do is to go after him and sooner or later he will leave the country.

Physicians are always afraid it will be said of them that it was jealousy that prompted their action; but let the people talk,—they have to be educated. If every member who loves the profession will make a determined stand for the enforcement of the law governing the practice

of medicine, quackery will fade as the mist before the dawn.

Let the State Board of Health understand that you are back of them in every move they make to uphold the profession; and when a quack is brought to trial before the courts or the Board, refuse to be used in any way, but demand a life that is in harmony with the profession.

We must clean our own house or become infected. The law-enforcing doctor is a disease that is fatal to the quack.

Dr. William Frick, Kansas City: This subject should be agitated. If it is not agitated we will not come to any agreement on what we want. If we get what Dr. Hardin speaks of we will get the relief that Dr. Crawford speaks of. Our organization is right along the line for the first work.

Dr. J. T. Anderson, Warrensburg: I do not believe that legislation can elevate the profession in the eyes of the people. It remains with us to bring our standing up. The standing of the county and state medical societies is no higher than the men who compose them. If they are composed of grafters, egoists and commercialists, you cannot make the people believe that we are saints and humanitarians.

Dr. H. M. Lyle, Kansas City: The medical profession will never accomplish anything until it gets rid of quackery. In Kansas City we have a great set of quacks and I know of physicians in Kansas City who are working with them right along; and these same physicians are members of the state association. Men who are working with these quacks should not be working with the state society; you cannot serve two masters at the same time.

Dr. Hardin, in closing: I prepared my paper before the completion of the work of the last assembly, so that a fractional part of the paper will not quite fit our laws at the present time. But in the main the paper is correct. I feel deeply that medical law and its rigid enforcement is necessary. I do not think any one but a doctor should govern medical institutions and I do not think anybody but a doctor knows how to do it. In our county we have been trying to eliminate politics from our medical societies. If a man wants to be elected to office in the county society and tries to get in by pulling political strings, he brings about, as he should, his own defeat. We are a part of a great profession and every infraction of law ought to be visited by commensurate punishment; the hope of the profession today is that every man who infracts the moral law must pay the penalty inevitably and fully.

Dr. Crawford, in closing: I want to call attention to the fact that the last legislature enacted enough laws which, if enforced, will put every quack out of existence. The great trouble with the law is the lack of enforcement. If we, as county societies, will see that these laws are enforced, and if necessary go down into our pockets and hire an attorney to assist the prosecuting attorney, the quack will soon be out of business. There is trouble, too, with the jury. The average jurymen believes that these quacks are doing good work, that we are making martyrs of them, and the result is a hung jury or the man is acquitted in spite of the instructions of the judge to the jury. We as physicians must educate the people to see the difference between a quack and a doctor.

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PUBLICATION COMMITTEE:

WALTER B. DORSETT, Chairman.

M. B. CLOPTON.

M. C. SHELTON.

EDITORIAL.

AMMENDMENTS TO CONSTITUTION AND BY-LAWS.

In this issue we publish the report of the Revision Committee in which changes in our present constitution and by-laws are suggested. This report will be presented to the House of Delegates at the annual meeting in May.

All county societies should study and discuss this report so that their delegates may be prepared to act in accordance with the wishes of the members when the House of Delegates is ready to take action upon it.

PAPERS FOR THE ANNUAL MEETING.

Those members who intend to read papers at the next annual meeting should send the titles to the program committee as soon as possible. This committee is now ready to classify papers preparatory to placing them upon the program of the meeting.

The committee consists of Dr. T. F. Lockwood, Butler, and Dr. Gail Allee, Lamar, for the medical section; Dr. H. E. Pearse, Kansas City, and Dr. Paul Y. Tupper, St. Louis, for the surgical section.

All communications pertaining to the program and papers to be read at the meeting should be addressed to this committee. The titles of papers on medical subjects should be sent to the Dr. Lockwood or to Dr. Allee and titles of papers on surgical subjects should be sent to Dr. Pearse or Dr. Tupper.

PROVISION FOR BUILDING COUNTY POOR FARMS.

On another page we publish a letter from Dr. Postlewait in which he calls attention to the fact that the last legislature passed House

Bill No. 352 which enables counties to raise funds for the erection of public buildings. Under the terms of this act the county court of any county may, upon its own motion or upon the request of one hundred tax payers in the county, order a proposition submitted to the county at any general election, or at a special election called for the purpose, to increase the rate of taxation for the purpose of erecting or improving public buildings. Of course county poor farms are included in this provision and therefore any county desiring to improve the condition of its home for the poor can do so if the majority of the tax payers evidence their willingness to pay the necessary increase in taxes to defray the expenses of such improvements.

This is a subject which county medical societies can advocate with propriety in those counties where the conditions demand attention.

THE COUNTY SECRETARIES' ASSOCIATION.

The meetings of the county secretaries, called by the officers of the Association for December 19th in St. Louis, and December 23d, in Kansas City, were well attended, enthusiastic and full of encouragement that the work of this body will become a powerful factor in promoting the welfare of the profession throughout the State. There were eighteen secretaries and district councilors at the meeting in St. Louis, and thirty-two at the Kansas City meeting. On another page appears a synopsis of the proceedings of the meetings; in the February issue we shall publish a more complete report of the proceedings.

At the annual meeting of the state Association in Springfield next May the secretaries will meet and establish permanent organization.

PROSECUTION FOR PRACTICING WITHOUT A LICENSE.

Cape Girardeau County Medical Society recently caused the arrest of one J. H. Cantlon, charged with practicing medicine without a license. Cantlon, after much persuasion, prevailed upon Dr. Grissom, a dentist in Cape Girardeau, to sign his bond for \$100.00, and then promptly disappeared. When the case was called in the court he could not be found. Dr. Grissom says he will bring Cantlon into Court if he can be located in Missouri.

CERTIFICATE OF MEMBERSHIP.

The Secretary has prepared a new form of certificate of membership in the Association. Every member who has paid his dues in the county society and in the State Association for the year 1908 will receive a certificate of membership. The certificate is a guarantee of membership and should be carefully preserved.

The Western Surgical and Gynecological Association held its 17th annual meeting in St. Louis, December 30-31, 1907. The membership is limited to 150, of which number about 75 were present. The next meeting will be held in Minneapolis.

The Indiana State Medical Association will establish an official journal to be known as the Journal of the Indiana State Medical Association, about January 15th. This journal will take the place of the former method of publishing the transactions in book form.

We welcome this new publication and anticipate that it will be a valuable addition to the various state organization journals.

MEETING OF THE SECRETARIES.

ST. LOUIS, DECEMBER 19TH, 1907.

The County Secretaries met in St. Louis, in the rooms of the St. Louis Medical Library, in response to a call of the officers of the State Medical Association, to form an association of the county secretaries.

The President, Dr. W. S. Allee, stated the objects of the association, which are to increase the efficiency of the county secretaries, extend the influence of the county societies and to aid in keeping up the work of the State organization to the full of its possibilities. In this matter, the county secretaries can do more than other members of the association.

Temporary organization was affected by the election of Dr. W. S. Allee, as temporary chairman, and Dr. E. J. Goodwin, temporary secretary. There were eighteen county secretaries and district councilors present, and a number of visitors from the St. Louis Medical Society who were interested in the organization of the county secretaries' association.

The chair called for expressions from the members concerning the condition of medical and medical society affairs in the various counties and each secretary reported. The general opinion prevailed that when the secretary of the county was active, earnest and diligent in keeping up the interest in the work of the society, the members usually responded to appeals and the society made progress. In some cases, local conditions, such as long distances between towns and poor transportation facilities, often prevented a large attendance at meetings.

A motion carried requesting the chair to appoint a committee to draft a constitution and by-laws and outline a plan for permanent organization, this committee to consist of two members from the St. Louis meeting and two members from the Kansas City meeting, and report at the annual meeting of the State Association at Springfield next May. The chair appointed Drs. R. D. Moore of St. Louis County,

and W. P. Patterson of Moniteau County. The other two members to be appointed at the Kansas City meeting.

The St. Louis Medical Society invited the members to luncheon and the meeting adjourned until 2 p. m.

AFTERNOON SESSION.

At the afternoon session, the various means of making county society work more effective and of creating more general interest among the members, formed the chief part of the discussion. The political phase of the medical society work was considered at length.

Dr. Porter of St. Louis, spoke of the work of the antituberculosis society and a motion carried requesting county societies to enter this field and form county antituberculosis societies.

A suggestion was made that all societies in each councilor district should have a union meeting once a year and a motion carried requesting that such union meetings of all societies in each county district be held annually.

Mr. Barth of St. Louis, attorney for the St. Louis Medical Society, gave an interesting account of what the St. Louis Medical Society had been doing, and has in contemplation to do, in the direction of suppressing quackery and illegal practise in that city; he stated that already much had been done, among other things the suppression of numerous advertisements in the newspapers of persons who advertised to commit abortion, the advertising of cures for cancer, etc.

Dr. Morfit, president of the St. Louis Medical Society, addressed the meeting, and suggested that the association advocate the establishment of a medical defense fund.

A vote of thanks was tendered the members of the Council of the St. Louis Medical Society for the luncheon given the members.

KANSAS CITY MEETING.

The county secretaries of the western part of the state met in the parlors of the Midland Hotel, Kansas City, on December 23rd. Dr. Allee was elected temporary chairman and Dr. Goodwin was elected temporary secretary. Thirty-one county secretaries and district councilors were present. The meeting was a very enthusiastic and profitable one.

Reports were called for and, as at St. Louis, the secretaries reported on the conditions existing in the various counties. It was the general opinion, all things considered, that the State organization was in a very excellent condition; in most counties progress was reported.

The Jackson County Medical Society invited the members to luncheon and adjournment was taken until 2 p. m.

AFTERNOON SESSION.

On motion, a vote of thanks was tendered the Jackson County Medical Society for the excellent luncheon spread for the members.

It was moved that the county societies be requested to arrange for holding their annual meetings in December of each year, in order that there may be uniformity in the time payment of dues, listing of the members of the State Association and transmitting reports to the officers of the State Association. This motion carried. The political question was discussed on lines similar to those taken up at the St. Louis meeting.

Dr. Madry moved that the county secretaries form local antituberculosis societies. Carried.

Dr. James moved that the secretaries take up with their county societies the question of holding union meetings, and request that they hold at least one meeting annually at which all the societies in the district shall attend, the time and place of meeting to be decided by the district councilor. Carried.

Dr. Fassett moved that the secretaries be requested to exchange programs with all other county societies. Seconded. Moved to amend, that this matter be referred to a committee to report at the Springfield meeting for final action. Carried.

It was moved that the State secretary be authorized to notify county secretaries that the chairmen and the secretaries of the sections of the State association constitute the program committee and that in order to secure a place on the program of the State meeting the member must do so through his county society, or on his own volition with the consent of the committee. This motion was amended to read that all papers should reach the committee through the county societies. Carried.

Dr. Elam introduced the following resolution:

Resolved, that the secretaries be requested to ask the county societies to instruct their delegates in regard to action upon the question of establishing a state medical defense and prosecution fund; and that the committee in whose hands this fund may be placed shall be instructed to aid in every way possible the attorneys in the various counties in the prosecution of illegal practitioners. Seconded and carried.

Dr. R. M. James, Joplin, and Dr. Chas. W. Fassett, St. Joseph, were appointed on the committee to draft a constitution and by-laws.

CORRESPONDENCE.

To the Members of the Missouri State Medical Association:

The Revision Committee, appointed at the last annual meeting to consider all suggestions and recommendations for changes in the Constitution and By-Laws, met in St. Louis on December 19th, 1907.

The following changes in the Constitution were proposed in the House of Delegates by Dr. J. R. Lemen, of St. Louis, at the last annual meeting and referred to this Committee, viz:

CONSTITUTION.

Article 5.—House of Delegates. *

"The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the component county societies, and (2) ex-officio, the officers of the Association as defined in this Constitution."

Shall be changed to read:—

"The House of Delegates shall be the legislative and business body of the Association and shall consist of (1) Delegates elected by the component county societies and (2) ex-officio, the presiding officer and secretary of the Association."

Article 8.—Officers.

"Section 1. The officers of this Association shall be a President, five Vice-Presidents, a Secretary, an Assistant Secretary, a Treasurer and sixteen Councilors."

Shall be changed to read:—

"Section 1. The officers of this Association shall be a President, five Vice-Presidents, a Secretary, a Treasurer, a Chairman, and a Vice-Chairman of each section, a Secretary of each section who shall be an assistant Secretary of the Association, and sixteen Councilors more or less as shall be determined by the House of Delegates from time to time."

"Section 4. The President shall be elected by the General Assembly on the last day of the meeting."

Shall be changed to read:—

"Section 2. The President shall be elected by the General Assembly on the last day of the meeting for a term of one year."

Shall be changed to read:—

"Section 2. The President shall be elected by the General Assembly on the last day of the meeting for a term of one year."

"Section 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretaries and the Treasurer shall be elected by the council at its annual meeting and each shall hold office for one year. The Councilors shall be elected for terms of five years each, being so divided that four shall be elected

each year. All of these officers shall serve until their successors are elected and installed.

Shall be changed to read:—

"Section 3. All the other officers except the officers of sections, shall be elected by the House of Delegates and for a term of one year except the Councilors who shall be elected for terms of three years each, being so divided that at least one-fourth of the number shall be elected each year. All officers shall serve until their successors are elected and installed. Each section shall elect annually a Chairman, a Vice-Chairman, and a Secretary who shall be an assistant secretary of the Association.

"Section 3. The officers except the President, Secretaries and Treasurer, shall be elected by the House of Delegates on the morning of the last day of the Annual Session, but no delegate shall be eligible to any office named in the preceding section except that of Councilor, and no person shall be elected to any such office who is not in attendance on that Annual Session and who has not been a member of the Association for the past two years."

Shall be changed to read:—

"Section 4. No delegate shall be eligible to any office except that of Councilor and no person shall be elected to any office who is not in attendance and who has not been a member of the Association for the past two years immediately preceding."

After carefully considering these and other proposed amendments, submitted to your Committee we recommend the following changes in the Constitution and By-Laws:

CONSTITUTION.

Article 8.—Officers.

Section 1. The officers of this Association shall be a President, five Vice-Presidents, a Secretary, a Treasurer and sixteen Councilors."

Shall be changed to read:

Section 1. The officers of this Association shall be a President, five Vice-Presidents, a Secretary, a Treasurer, a Chairman and Vice-Chairman of each section, a Secretary of each section who shall be an Assistant Secretary of the Association, and twenty-nine Councilors more or less as shall be determined by the House of Delegates from time to time.

Section 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretaries and the Treasurer shall be elected by the council at its Annual Meeting and each shall hold office for one year. The Councilors shall be elected for terms of five years each, being so divided that four shall be elected each year. All of these officers shall serve until their successors are elected and installed.

Shall be changed to read:—

Section 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretary and the Treasurer shall be elected by the council at its annual meeting and each shall hold his office for one year. The Councilors shall be elected for terms of five years each, being so divided that one-fourth of the number

shall be elected each year. Section officers shall be elected by the members registered in the Section and shall serve for a term of one year each. All these officers shall serve until their successors are elected and installed.

Section 3. The officers, except the President, Secretaries and Treasurer, shall be elected by the House of Delegates on the morning of the last day of the annual session, but no Delegate shall be eligible to any office named in the preceding section except that of Councilor, and no person shall be elected to any office who is not in attendance on that Annual Session and who has not been a member of the Association for the past two years.

Shall be changed to read:—

Section 3. The Vice-Presidents, Councilors and Members of the Committee on Public Policy and Legislation shall be elected by the House of Delegates on the morning of the last day of the annual session, but no Delegate shall be eligible to any office named in the preceding section except that of Councilor, Chairman, Vice-Chairman or Secretary of a Section; and no person shall be elected to any office who is not in attendance on that annual session and who has not been a member of the Association for the past two years.

Section 4. The President shall be elected by the General Assembly on the last day of the meeting.

Shall be changed to read:—

Section 4. The President and the Orators shall be elected by the General Assembly on the morning of the last day of the meeting.

BY-LAWS.

Chapter 5.—Election of Officers.

Section 2. The House of Delegates on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same councilor district. It shall be the duty of this Committee to consult with the members of the Association and to hold one or more meetings at which the best interests of the Association and of the profession of the State for the ensuing year shall be carefully considered. The Committee shall report the result of its deliberations to the House of Delegates in the shape of a ticket containing the name of one member for each of the offices to be filled at that annual session.

Shall be changed to read:—

Section 2. The House of Delegates on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same councilor district. It shall be the duty of this Committee to consult with the members of the Association and to hold one or more meetings at which the best interests of the Association and of the profession of the State for the ensuing year shall be carefully considered. The Committee shall report the result of its deliberations to the House of Delegates in the shape of a ticket containing the name of one member for each of the offices to be filled by the House of Delegates at that annual session.

Add a new section to be known as Section 6, as follows:

Section 6. Nominations for President and Orators shall be made orally in the General Assembly on the morning of the last day of the Annual Meeting.

Chapter VIII.—Committees and Sections.

Add a new section to be known as Section 6, as follows:

Section 6. Duties of Officers of Sections. The Chairman shall preside at the meetings of the section and shall perform such duties as usually belong to such an office, or as may be provided by the rules and regulations of the Section. The Vice-Chairman shall assist the Chairman in the performance of his duties and shall preside in his absence or at his request. The Secretary shall keep a record of the proceedings of the Section, in a book provided for that purpose, and shall perform such other duties pertaining to his office as may be imposed by the rules and regulations of the Section and the By-Laws of the Association.

Observing the instructions given to your Committee, this report is published in the January, 1908, issue of the JOURNAL in order that all affiliated county societies may have an opportunity to discuss the changes recommended and instruct their delegates to the meeting at Springfield, in May, 1908, how to act when these proposed changes come up for adoption.

Respectfully submitted,

WALTER B. DORSETT,
JABEZ N. JACKSON,
F. B. HILLER.

The Committee.

Editor, Journal Missouri State Medical Association.

Dear Sir:—I notice in the December issue of the JOURNAL, an editorial from the *Bunceton Weekly Eagle*, of Cooper County, describing the bad condition of their county poor house. In the same article under the caption "The County Poor Farm," you say that Dr. Highsmith of Carrollton (Carroll County) mentioned the deplorable condition of the poor farm in that county. I entirely agree with the views expressed that we should endeavor to give comfortable quarters to the unfortunate poor.

Recently in Atchison County, by an overwhelming vote, the people authorized the county court to expend \$20,000.00 in the building of a modern county home for our poor.

I understand that the Forty-fourth General Assembly passed or enacted H. B. 352, enabling county courts to levy a tax for public buildings. This law can be found on Page 192 of Session Acts of 1907. If I understand this act correctly, the citizens of any county can, if a sufficient number of them desire it, authorize their county courts to levy taxes for purposes so much needed in Carroll and Cooper Counties. No further legislation is needed.

Yours truly,

J. A. POSTLEWAIT, M. D.,

Springfield, Mo.

Editor, Journal Missouri State Medical Association:

Dear Sir:—The following resolutions were adopted at the meeting of the Southwest Missouri Medical Society, November 7th to 8th, 1907, and a copy ordered sent to you for publication.

Yours very truly,

H. S. HILL, M. D., Secretary.

Resolved, that in order to promote science and better advance the cause of sanitation and public hygiene, and to facilitate the standardization of medicine in the United States, we favor, and ask our representatives in both houses of Congress to labor for, the creation of a new Cabinet officer, to be known as the Secretary of Health.

Resolved, further that when the new department shall have been made, that none but Doctors of Medicine skilled in the practice of the science and art of medicine, and who shall bear professional endorsement of an unquestionable kind ought to be considered eligible to the position of Secretary of Health.

Whereas, there exists in each State of this republic a dual sovereignty, which for the most part is desirable being for our best interests, but whereas in one particular this dual sovereignty does not conserve to the best and most economic interest of that branch of science known as Medicine, but usually in a multiplicity of standards; that uniformity be had and reciprocal relations between the States be established; be it resolved that our honorable Board of Health be requested to seek such intercourse with and action by the Boards of Health or examiners of the other States as will insure the mutual adoption of such a standard of Medical education as will permit a feasible and right reciprocity among the states of the republic.

Resolved that we favor such amendments to the medical laws of our state as will permit of a speedier and more practical investigation of its violations and to a surer method of inflicting the penalties than now contemplated by the present enactments.

Be it further resolved that we favor such increase in power and scope of the authority of the Board of Health as will permit them to make all investigations of infractions of our Medical or sanitary laws as in their judgment may be deemed expedient or the public good may require.

Be it further resolved that we believe the infliction of penalties for violations of law, should be specific and not left at option.

Whereas, the State's plan of caring for its indigent sick is too antiquated to meet the demands of present day civilization, to the extent that many worthy poor sometimes fail to call for or obtain needed medicines and medical services, and others procure the said services and medicines through the demand of charity enforced upon unfortunate physicians.

Therefore, be it resolved that the State should provide more adequate means for caring for its sick poor, and not compel our physicians to bear practically the greater charitable burden.

Be it further resolved that both the economic and humanitarian interests of the State will be infinitely better subserved by aiding the Board and increasing its powers for the promotion of science, the dissemination of hygiene and sanitary knowledge, and the cultivation of a more intimate and friendly intercourse with the profession of the State.

Be it further resolved that a copy of these proceedings be furnished the members of the Board of Health, a copy be sent to each of the District Medical societies, and a copy each to the Kansas City Index-lancet and the State Medical Association Journal for publication.

Be it further resolved that all regular Medical societies of the State be invited to join us in our requests as set forth in these resolutions.

RESOLUTIONS ADOPTED BY THE EXECUTIVE COMMITTEE OF THE AMERICAN NATIONAL RED CROSS.

OCTOBER 18, 1907.

Whereas, By international agreement in the Treaty of Geneva, 1864, and the revised Treaty of Geneva, 1906, "the emblem of the Red Cross on a white ground and the words Red Cross or Geneva Cross" were adopted to designate the personnel protected by this Convention, and

Whereas, The Treaty further provides (Article 23) that "the emblem of the Red Cross on a white ground and the words Red Cross or Geneva Cross can only be used whether in time of peace or war, to protect or designate sanitary formations and establishments, the personnel and material protected by this Convention," and

Whereas, The American National Red Cross comes under the regulations of this Treaty according to Article 10, "volunteer aid societies, duly recognized and authorized by their respective Governments", such recognition and authority having been conferred upon the American National Red Cross in the Charter granted by Congress, January 5, 1905, Sec. 2, "The corporation hereby created is designated as the organization which is authorized to act in matters of relief under said Treaty," and, furthermore,

Whereas, In the Revised Treaty of Geneva, 1906,*in Article 27, it is provided that "the signatory powers whose legislation should not now be adequate, engage to take or recommend to their legislatures such measures as may be necessary to prevent the use by private per-

sons or by societies other than those upon which this Convention confers the right thereto of the emblem or name of the Red Cross or Geneva Cross,"

Be It Resolved, That the Executive Committee of the American National Red Cross requests that all hospitals, health departments and like institutions kindly desist from the use of the Red Cross created for the special purpose mentioned above, and suggests that for it should be substituted some other insignia, such as a green St. Andrew's Cross on a white ground, to be named the "Hospital Cross," and used to designate all hospitals (save such as are under the Medical Departments of the Army and Navy and the authorized volunteer aid society of the Government), all health departments and like institutions, and, further,

Be It Resolved, That the Executive Committee of the American National Red Cross likewise requests that all individuals or business firms and corporations who employ the Geneva Red Cross for business purposes, kindly desist from such use, gradually withdrawing its employment and substituting some other distinguishing mark.

COUNTY SOCIETY NOTES

ADAIR COUNTY MEDICAL SOCIETY.

The Adair County Medical Society met December 5th, 1907, at Kirksville.

The Society voted unanimously to pay the secretary's expenses to the secretaries' meeting.

The Society extends its co-operation in the work of suppressing the nostrum evil.

Dr. Patrick H. McCambridge, of Adair, sent in his name for membership. The rules were suspended and he was elected to membership.

The Address of the retiring president, Dr. Callison, gave in a concise way the advancement of our Society. The paper will be sent to the JOURNAL for publication.

Officers elected for 1908: President, Dr. J. S. Gashwiler, Novinger; vice-president, Dr. J. W. Martin, Kirksville; secretary-treasurer, Dr. E. C. Grim, Kirksville; board of censors, Dr. E. C. Callison, Kirksville.

Further arrangements were discussed relative to the open meeting. The program committee was instructed to prepare a program for 1908 similar to the one of 1907.—E. C. GRIM, M. D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

The Cape Girardeau County Medical Society held its regular monthly meeting at Cape Girardeau, December 6th. This being the meeting for the election of officers, no program was arranged for. Results of the election were as follows: President, Dr. R. F. Wichterich; vice-president, Dr. W. K. Statler; secretary, Dr. E. H. G. Wilson; treasurer, Dr. R. T. Henderson; board of censors, Drs. H. L. Cunningham, C. M. Witmer, and W. E. Yount, to serve one, two and three years respectively; delegate to State Association, Dr. H. L. Cunningham; delegate to Committee on Public Health and Legislation, Dr. J. D. Porterfield, Jr.

The Society discussed the case of Dr. J. H. Cantlon, who was arrested on a charge of practicing medicine without a license, sworn out by the Cape Girardeau County Medical Society. Cantlon was admitted to bail after having persuaded Dr. M. A. Grissom, a dentist, to sign his bond. When his case was called for trial Cantlon did not appear. Dr. Grissom says he will bring Cantlon back if he can be found in Missouri.

Dr. M. A. Grissom, D.D.S., and most of the dentists are in sympathy with organized medicine.

The Society discussed the advisability of asking Dr. Geo. Homan of St. Louis, to give a public lecture on the prevention of tuberculosis, under the auspices of the Cape Girardeau County Medical Society.

The next place of meeting will be Jackson, January 3d.—E. H. G. WILSON, M. D., Secretary.

GASCONADE-OSAGE-MARIES COUNTY MEDICAL SOCIETY.

The Gasconade-Osage-Maries County Medical Society met at Bland on December 17th.

Dr. J. J. Ferrell had a surgical clinic, removing a lipoma from the left temple of a patient.

Dr. A. R. Kieffer, of St. Louis, conducted the next clinic, a resection of the supra-orbital nerve in a patient who had a severe, persistent neuralgia over left eye.

Dr. J. J. Ferrell next tested the eyes of a patient and gave prescription for glasses. (

Dr. I. M. Owens read his paper on personal experience in typhoid fever, in which he reported 153 cases of typhoid fever. As to the etiology he said he noticed several cases following a picnic where ice taken from a certain pond had been used for making lemonade. He thought this pond was infected with the typhoid germ. He recommended few remedies, and withholding of food; he condemned the use of cold baths, and said they often produce shock, with a tendency towards internal hemorrhages. His main remedies were calomel, podophyllin, and guaiacal.

Dr. Seba, in discussing Dr. Owens' paper, said he agreed with the essayist upon the etiology and treatment of typhoid fever; he thought that if the disease was recognized in its early stages it very often could be aborted, if the regular typhoid treatment was established right from the beginning; he condemned the use of quinine in typhoid fever, claiming it would set up many unpleasant symptoms. He said that the diagnosis in patients between 10 and 30 years of age was easy, but very difficult in the very young and old. He had used the bath method but had abandoned it in favor of colonic douches.

Dr. John L. Short, of Versailles, said he was not in general practice now, but when he was he resorted to the quinine test to make a differential diagnosis between typhoid and malarial fever. If quinine checked the fever it was malarial; if it did not it was typhoid. He thought that was good practice and he would not hesitate now to use it if he was in general practice.

Dr. Owens, closing, reiterated his condemnation of quinine and the cold bath by immersion, in typhoid fever, claiming it produced many unpleasant symptoms, such as shock, internal congestion and a tendency towards hemorrhages.

Meeting adjourned until 7 p. m.

Upon reassembling, Dr. J. J. Ferrell read his paper on refraction and how to refract. In his paper Dr. Ferrell stated the scientific principles which underlie the art of fitting glasses; how parallel lines or rays of light were refracted or bent towards the base if passed through a prism, and that this law was made use of by opticians in fitting glasses.

Dr. John L. Short, of Versailles, in discussing Dr. Ferrell's paper said that cross eyes were not congenital, but a difference in the two eyes would cause double vision, and in order to avoid this double vision the weak eye was rolled out of line, and thus caused the strabismus; that correction of this error in vision by properly fitting glasses would prevent, if not cure, strabismus; in older persons where the strabismus was of long standing correction would not cure the condition but surgery would have to be resorted to.

Dr. J. D. Seba deplored the fact that there was a general prejudice against young persons wearing glasses; that this prejudice was entirely due to ignorance; that many children could not learn their lessons on account of an error in vision; that eye strain produced many unpleasant symptoms, and to relieve them was as much within the province of the physician as the treatment and cure of any other abnormality.

Dr. J. J. Ferrell closed the discussion with a few timely remarks.

Dr. C. T. Leach then read a paper on gunshot wounds. He discussed how wounds should be disinfected and drained and reported a few cases of gunshot wounds and the result of treatment in each. This paper was discussed by Dr. Short, Ferrell, Owens, Engelbrecht and Radmacher.

Dr. John Engelbrecht then read a paper upon the treatment of a "bad cold." This paper aroused a lively discussion as to the etiology of this disease, Dr. J. J. Ferrell believing that it was of germ origin, Dr. Short thinking it was due to chilling of the body and consequent congestion of the mucous membranes.

Dr. Seba then read a paper entitled, "The physician, a Day Laborer or a Contractor," in which he discussed case taking, claiming all acute cases should be treated by visit or treatment, but all surgical work or chronic cases should be taken by the case, or contract, taking into consideration the ability of the patient to pay, the probable duration of the disease. This paper aroused a lively discussion.

The following officers were elected for 1908: Pres., J. J. Radmacher, Meta; Vice Pres., John Engelbrecht, Stonyhill; Sec. and Treas., John D. Seba, Bland; Delegate, J. J. Ferrell, Owensville; Com. on Censure, J. E. Jose 1 year, S. I. Terrill 2 years, C. T. Leach 3 years; Com. on Health, J. E. Neeley, J. J. Ferrell, W. F. Byler.

Adjourned to meet at Owensville in April, 1908.—JOHN D. SEBA, Sec.-Treas.

GREENE COUNTY MEDICAL SOCIETY.

The regular bi-monthly meeting of the Greene County Medical Society was held at Springfield on Friday, December 13th; there were twenty members present.

Dr. H. J. Ruyle, of Springfield, was elected to membership in the Society. Letter received from President and Secretary of State Medical Association was read calling a meeting of the Secretaries and Councilors to be held for this district in Kansas City, December 23rd, the Secretary being unable to attend, on motion the society elected Dr. T. A. Coffelt, Councilor of this district, to attend this meeting as the representative of the Society.

Dr. C. B. Elkins read a paper on "Exophthalmic Goitre," which was discussed by Drs. Fulton, Rienhoff, Smith, Ross and others.—J. L. ORMSBEE, M. D., Secretary.

THE HENRY COUNTY MEDICAL SOCIETY.

The Henry County Medical Society met in regular session on Wednesday, Dec. 11th, 1907. Members present: Drs. J. J. Russell, W. M. Shankland, W. H. Gibbins, B. B. Barr, A. E. Derwent, J. M. Miller, S. A. Poague, R. D. Haire, J. R. Hampton, E. C. Peelor and F. M. Douglass. Visitors, Drs. A. J. McNees, G. W. Berry, and Dr. J. W. Gray.

Dr. Gibbons reported a case of puerperal eclampsia that ran the usual course; was treated by blood letting, veratrum, and emptying the uterus; recovery. Discussed by Drs. Miller, Peelor, Shankland, Russell, Hampton, Poague and McNees.

Dr. A. J. McNees read a paper on "Psychic Influence as a Therapeutic Agent." It showed considerable care and research on this subject and the usefulness of the method in certain cases. Discussed by Drs. J. J. Russell and R. D. Haire.

Dr. E. C. Peelor reported a case of gastric ulcer treated with silver.

Dr. Wallis reported a case of progressive muscular atrophy treated with large doses of strychnin. Discussed by Dr. R. D. Haire.

The election of officers resulted as follows: President, Dr. J. R. Hampton; vice-president, Dr. W. M. Shankland; secretary-treasurer, Dr. F. M. Douglass; censors, Drs. R. D. Haire, W. H. Gibbins.

The board of censors reported favorably on the applications of Drs. A. J. McNees and Dr. G. W. Berry and they were elected as members.—F. M. DOUGLASS, M. D., Reporter.

LAWRENCE-STONE COUNTY MEDICAL SOCIETY.

The Lawrence-Stone County Medical Society met at Crane, Stone County, December 3rd.

Dr. Doggett, who had a paper on Diphtheria, and Dr. Hill a

Report of a case of Labor both being absent, were passed and Dr. G. B. Dorrell called. Dr. Dorrell's subject was "Alkaloidal Medication." The paper was well prepared, and set forth the advantages of alkaloidal medication.

Dr. Dorrell stated that the alkaloids were the most stable form of drugs, and that they were therefore sure of producing the physiologic effects. He sustained the objection to the powders, tinctures, fluid extracts, etc., that they contained other active principles, which had not deteriorated *pari passu* with the one for which the drug was often given, and for this reason the effect sought was not obtained, while the undesirable effects of the other constituents of the drug appeared. This he thought would often account for the fact that drugs when given to a patient did not always produce the desired effect.

He thought uniformity of action with alkaloids could be relied on, and with this assured to the physician, one who used this class of drugs might be stimulated to greater efforts in behalf of his patients. The practice in Europe was known as dosimetry, in America as alkalometry or alkalotherapy or active principle medication.

Dr. D. M. Huffman opened the discussion, stating that his experience of twelve years with the alkaloids was similar to that of Dr. Dorrell; that he had, however, not used the alkaloids exclusively; that he would expect results from any reliable drug but that he got, or thought he got, exactly the effect desired from proper administration of the alkaloids.

Dr. Andrews said he had not used the alkaloids extensively. Some he had used many times, but others very little. He had used the alkaloids in typhoid fever cases, and thought he had gotten very good results.

Dr. Goodrich had practiced extensively using the alkaloids and found them convenient to carry, reliable in action, and safer to leave in the hands of patient or nurse.

Dr. Madry had tried alkaloidal medication but not to the extent of some of the speakers who had preceded him. He had not seen so marked a difference in favor of this form of medication. He had not desired to be "The first by whom the new is tried, nor yet the last to cast the old aside." He called attention to the fact that it required many years to properly test any drug or form of medication. He thought the commercialism and optimism of those who have been exploiting the alkaloids should be taken into the accounting before finally deciding as to the merits and demerits of the system. He had obtained expected results from the administration of reliable drugs, and thought the combined action of a number of active principles often preferable to that of any one of them acting singly. He could not see how the alkaloids being so sure and so powerful would yet be safer to leave in the hands of patient or nurse.

Dr. Brown, of the State Sanatorium, had used alkaloidal medication, and was favorably inclined to it.

Dr. Dorrell was brief in the remarks closing the discussion.

The time till adjournment for dinner being too short for the next item on the program, the censors begged leave reported on the applications of Drs. S. F. Henson, of Galena, O. H. Brown, of Mt. Vernon, and Jas. H. Wade, of Ponce de Leon, for membership. A favorable report was made and the three were unanimously elected to membership.

AFTERNOON SESSION.

Dr. Doggett was called on opening the program for the afternoon, and read a paper on "Diphtheria." He laid particular stress on the differential diagnosis of diphtheria and pseudodiphtheria. Diphtheria was contagious, and the microscope revealed the presence of the Klebs-Loeffler bacillus, while the pseudo variety was not contagious, and in this the microscope revealed the presence of the streptococcus. He had not used antitoxin in the treatment of either the true or pseudo variety.

Dr. Madry, opening the discussion, said he believed there was yet something unknown in the natural history of the Klebs-Loeffler bacillus, that, when discovered, would account for the isolated cases, or those cases that could not be traced to known sources of infection. These cases had died, as a rule, before the day of antitoxin, and got well almost invariably under the proper treatment with antitoxin. He insisted that in all cases of doubtful diagnosis, antitoxin should be given. His idea was to give the remedy early, often if necessary, and in doses of highest potency. Membranous croup was laryngeal diphtheria, and diphtheria was at first local in all cases, the larynx being a favorite site for the development of the Klebs-Loeffler bacillus.

Dr. Andrews agreed in theory and practice with Dr. Madry. He stated that pseudodiphtheria was synonymous with what was sporadic diphtheria, now a vanishing term. He regarded antitoxin as the remedy in all cases, both of plain cases of diphtheria, and those of doubtful diagnosis. He recommended repetition of dose every six hours if necessary.

Dr. Shelton was at first prejudiced against antitoxin, but was now a firm believer. He had never seen harm come from the use, but he had seen the worst of consequences from non-use.

Dr. Brown stated it had been demonstrated that diphtheria and pseudodiphtheria were entirely different diseases, and therefore called for different plans of treatment.

Dr. Tefft believed membranous croup and diphtheria entirely different diseases, and in these cases he preferred an icebag to antitoxin.

Dr. Doggett in closing touched upon the treatment required in each variety:

Drs. Miller and Fulton who had been placed on the program not being present, it was suggested that Dr. O. H. Brown, of the State Sanatorium, be requested to tell about his work at Mt. Vernon, and that he be allowed all the latitude he desired to properly present his subject. He exhibited a map of the grounds and plans and arrangement of the buildings erected, those under construction, and those yet to be built, describing them and the purposes for which they are intended. He further told of the manner of making applications by the two classes (the private and those sustained by the respective counties in which they lived), the one directly through the Sanatorium and the other through the county court. He spoke of the construction of the buildings, the number and condition of the patients, the treatment, and the method of diagnosis.

The interest shown by this society in Dr. Brown's presentation indicates the intense interest felt by the physicians of Lawrence and Stone counties in this humanitarian enterprise.

The society can be counted on to a man to aid the State and humanity to the full extent of its ability in the battle against the "White Plague."

Dr. Smart closed the scientific part of the program with the report of a case of doubtful diagnosis, but thought to be tuberculosis of the peritoneum. A statement of the condition as far as could be determined had been made to the patient and her husband who, thereupon, requested that at least an exploratory operation be performed.

This was done and on opening the abdominal cavity, the peritoneum appeared normal but all the lymphatics on and near the intestines were found to be tuberculous. The patient rallied from the operation, but within a few hours, began to show signs of extreme weakness and died twenty-four hours after the operation.

The theory advanced was that tuberculous matter possibly contained in food passing down the lumen of the intestine had been absorbed and arrested by the lymphatics. Subsequent history developed the fact that a sister had died some time previously with what was thought to be a long-drawn typhoid fever, but Dr. Smart was now of the opinion that that case was also one of tuberculosis.

Drs. Shelton and Wade, who had been designated to open discussion, were brief in their remarks on account of the short time left to be devoted to the scientific part of the program. Dr. Shelton expressed himself as opposed to surgical interference in cases of abdominal tuberculosis, and in this he was opposed by some others who spoke in the irregular discussion.

At the close of this discussion, Dr. Stevenson announced that it was the time for our annual election of officers. Dr. D. M. Huffman, of Crane, was nominated and elected President; Dr. A. H. Madry, of Aurora, vice-president; Dr. J. H. Craven, of Marionville, treasurer; Dr. C. W. Shelton, of Mt. Vernon, Secretary. These elections were

each done under suspension of rules and by acclamation. The further election of officers was postponed until the next regular meeting. Mt. Vernon was chosen as the next place of meeting.—A. H. MADRY, M. D., Secretary.

LINN COUNTY MEDICAL SOCIETY.

The Linn County Medical Society met in annual session at Laclede, December 17, 1907.

The following officers were elected for the year 1908: President, Dr. J. T. Polson, Laclede; first vice-president, Dr. B. B. Putman, Marcelline; second vice-president, Dr. J. W. Lane, Linneus; secretary, Dr. F. W. Burke, Laclede; treasurer, Dr. J. L. Burke, Laclede; delegate, Dr. F. W. Burke, Laclede.

Time of meeting Tuesday evening nearest the full of the moon in February, April, June, August, October and December. Meetings are held bi-monthly and are migratory.

The society endorsed the organization of the county secretaries' association.

The members expressed themselves favorable to a fall meeting of the State Association, although the subject will come up for further discussion at the February meeting.

The recommendations of the State Board of Health will be considered at the February meeting. As a whole the recommendations were endorsed and will be reported to the State Association later.

Dr. Z. T. Standly read a paper on Colles' fracture.

The next meeting will be held at Brookfield, in February.—F. W. BURKE, M. D., Secretary.

PLATTE COUNTY MEDICAL SOCIETY.

The Platte County Medical Society meeting was held in Platte City on December 4th.

Dr. S. Redman, the retiring president, entertained the members at a dinner at Central Hotel.

The following members were present: Drs. E. R. Hull, A. S. Herndon, P. S. Gardner, F. M. Shafer, J. B. Willis, H. M. Clark, Alva Naylor, Spence Redman and G. C. Coffey.

Dr. Herndon presented his paper on chronic "Gastric Catarrh," which he classed as an inflammation of the mucous membrane of the stomach with an over-secretion of alkaline mucus which adhered to the mucous membrane of the stomach; and characterized by hyperemia of membrane, glands eroded, and swollen or atrophied. Symptoms were a variable appetite, distress after meals, pain when stomach is empty, pain on pressure (not severe), tongue coated and red at tip, vomiting and belching of gas; patient melancholic, pulse small. Treatment: Masticate food well, eat at regular intervals, regulate bowels, let the patient

select his own food. Bitter tonics, salines, bismuth, alteratives, silver nitrate, gastric lavage, rest; pepsin preparations, do more harm than good. He thinks that starches do not do much harm unless the process has extended into the bowels, at which point starches are digested. This subject was discussed at length by all present.

Dr. F. M. Shafer read his paper on "Trachoma," which was enjoyed and discussed by all.

The secretary and treasurer made their annual reports. The society voted to pay the railroad fare of the secretary to the meeting of the county secretaries at Kansas City.

The secretary was instructed to correspond with Dr. Blackburn in regard to the post-graduate work for societies.

Dr. Hull of Camden Point was elected a member.

The following officers were elected: President, Dr. W. D. Swaney, Linkville; vice-president, Dr. H. M. Clark, Platte City; secretary, Dr. F. M. Shafer, Edgerton; Treasurer, Dr. E. R. Hull, Camden Point; censor, Dr. P. L. Gardner, Waldron; delegate, Dr. A. S. Herndon, Camden Point.

The Society adjourned to meet the 1st of January, 1908.—G. C. COFFEY, M. D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY.

The Meeting of the St. Louis County Medical Society was held at Kirkwood, December 11th, at 2:30 p. m., Dr. F. E. Guibor presiding.

Election of officers resulted as follows: President, Dr. C. A. Dunnivant, Kirkwood; vice-president, Dr. C. L. Armstrong, Webster Grove; secretary-treasurer, Dr. W. H. Townsend, Maplewood; censor, Dr. R. W. Mills, Webster Grove.

A committee was appointed to organize a tuberculosis relief association and to report at the next meeting.

The annual banquet usually held in December was postponed until January or February.

The secretary, Dr. R. D. Moore, made his annual report for 1907, as follows:

Number of meetings held, 11.

Average attendance, 14.

Scientific papers read, 13.

Number members dues paid, 41.

Number members dues unpaid, 4.

Number members suspended for non-payment of dues, 2.

Number deceased, 1.

Number removed, 1.

New members, 6.

On motion the report was adopted.—R. D. MOORE, M. D., Reporter.

WEBSTER COUNTY MEDICAL SOCIETY.

The Webster County Medical Society met at Seymour, December 11th, 1907.

The application of Dr. D. A. Williams, of Niangua, for membership was received and referred to the board of censors for report at the March meeting.

The subject for discussion at this meeting was "Pneumonia." Dr. T. S. Bruton discussed "Definition and Etiology;" Dr. W. H. Bollinger, "Morbidity Anatomy;" Dr. E. Trimble, "Symptomatology;" Dr. W. R. Beatie, "Complications," and Dr. M. Highfill, "Treatment." A general discussion by all members followed the reading of the papers.

Dr. W. J. Rabenau, of Fordland, reported a case of abscess of right kidney, with operation and recovery.

Officers for next year were elected, as follows: Dr. M. Highfill, president; Dr. E. Trimble, vice-president; Dr. W. R. Beatie, secretary and treasurer; Dr. W. J. Rabenau, censor for three years.

Moved and carried that we hold an open meeting at our next regular session and that the chair appoint an essayist to prepare a paper on Public Health and Sanitation; and that invitations be extended to the public to attend.—W. R. BEATIE, M. D., Reporter.

EXAMINATION QUESTIONS STATE BOARD OF HEALTH
OF MISSOURI, NOVEMBER 19, 20, 21, 1907.

There were thirty-four applicants for examination to practice medicine and surgery and thirteen applicants to practice midwifery. The Board will pass upon the grades made by these applicants on January 7, 1908.

ANATOMY.

- (1) Describe 1st, 2nd and 7th cervical vertebra.
- (2) Describe the clavicle; with what bones does it articulate.
- (3) Describe the ankle joint in detail.
- (4) Name the valves of the heart and give their location.
- (5) Give surface topography of liver. (B. pancreas.)
- (6) Give anastomosing circulation after ligation of femoral artery at its lowest point.
- (7) Give gross and minute anatomy of uterus.
- (8) Give anatomy, blood and nerve supply of mammary gland.
- (9) Give number and names of lumbar nerves.
- (10) Name all muscles that move eye ball, giving function of each.

JURISPRUDENCE.

- (1) Define criminal abortion.
- (2) Describe death by drowning.
- (3) Give technic of autopsy.
- (4) Give post mortem finding of death by strychnine poisoning.
- (5) By what signs would you recognize that a child had been born alive.

PRACTICE.

- (1) What are the symptoms indicative of intestinal perforation in typhoid fever? Give treatment.
- (2) What is pseudoleukæmia? Give symptoms and treatment.
- (3) Give etiology, symptoms and treatment of erysipelas.
- (4) How would you diagnose gastric ulcer?
- (5) Discuss ptomaine poisoning.
- (6) Give etiology, symptoms and treatment of phlebitis.
- (7) Give symptoms and treatment of tubercular meningitis.
- (8) Give etiology, symptoms and treatment of asthma.
- (9) How would you differentiate chickenpox and smallpox.
- (10) Give the period of incubation in scarlet fever; describe the eruption and give treatment.

HYGIENE.

- (1) Discuss and differentiate between contagion and infection; mention three diseases of each class.

(2) Discuss quarantine; mention four diseases in which you would institute quarantine, giving period of incubation and length of quarantine in each case.

(3) Outline hygienic care and prophylaxis of tuberculosis patient in private home.

(4) What is the composition of cow's milk: Give detailed method for sterilizing and peptonizing same.

(5) Discuss phagocytosis.

THERAPEUTICS.

(1) Give doses and indications for use of ammonium carbonate.

(2) Give doses and indications for use of aloes socotrine.

(3) Give doses and indications for use of opium.

(4) Give doses and indications for use of iodoform.

(5) Give doses and indications for use of asafoetidae.

(6) Give doses and indications for use of ergot.

(7) Give doses and indications for use of buchu.

(8) Give doses and indications for use of calabar bean.

(9) Give doses and indications for use of cannabis indica.

(10) Give doses and indications for use of belladonna.

(11) Give the symptomatology and physiological effect of opium, ergot and belladonna.

OBSTETRICS.

(1) What are the causes and symptoms of phlegmasia alba dolens?

(2) Describe mechanism of podalic version, and give indications for performing same.

(3) How would you treat a case of placenta previa after 7th month?

(4) Give cause of, and how would you treat, hour-glass contraction?

(5) Give cause and treatment of post partum hemorrhage.

(6) Detail symptoms of pregnancy at 5th month.

(7) Give diameters of pelvis and of fetal head at full term.

(8) Give symptoms and treatment of the vomiting of pregnancy.

(9) How could you manage a case of foot presentation with prolapse of cord?

(10) How would you resuscitate an asphyxiated child?

CHEMISTRY.

(1) Give chemical reaction that takes place in the production of apomorphia from morphia.

(2) What are the chemical properties of iodine?

(3) Give steps in the manufacture of chloroform.

(4) Tell how methylic alcohol is obtained; give chemical properties of same.

(5) Give toxicology of sulphuric ether and treatment of same.

PHYSIOLOGY.

- (1) Why is water indispensable to the human body?
- (2) Give difference between blood plasma and lymph.
- (3) What causes may lead to daily variations in the temperature of a healthy individual?
- (4) Give functions of spinal cord.
- (5) What is apnœa?
- (6) Describe respiration.
- (7) Where is urea mostly formed? How demonstrated?
- (8) What is meant by astigmatism?
- (9) Give brief outline of secretion of urine.
- (10) What do you understand by assimilation?

BACTERIOLOGY.

- (1) Describe sterilization and disinfection; the reasons for their employment in medicine and surgery.
- (2) Describe the micro-organism of gonorrhœa, the pathological changes which occur upon the mucous membrane of the urethra and in its secretions and the method of staining the gonococcus.
- (3) Describe the bacillus tuberculosis and the method of cultivating it.
- (4) Describe Widal's test.
- (5) Describe the bacillus of tetanus and the theory upon which antitetanic serum is administered.

PATHOLOGY.

- (1) Discuss mixed or concurrent infection.
 - (2) Describe granulation tissue, give its origin and function.
 - (3) Describe the changes in the walls of an artery occurring in any form of aneurysm.
 - (4) What is an infarct?
 - (5) Discuss the process of ulcer formation.
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ARTICLES APPROVED BY THE COUNCIL ON PHARMACY AND CHEMISTRY.

GUAIACOL-SALOL.

Guaiacol, $C_6H_4OH.COO(C_6H_4.OCH_3)=C_{14}H_{12}O_4$, the salicylic ester of guaiacol, analogous to salol.

Actions and Uses.—This compound acts like its constituents, being antiseptic and antirheumatic. It is recommended in phthisical diarrhea, dysentery, rheumatism, marasmus, chorea, etc. Dosage.—1 Gm. (15 grains). Manufactured by the Fabrik von Heydon, Radebuel near Dresden (Merck & Co., New York).

GUAIAMAR.

Guaiamar, $C_6H_4OCH_3O(CH_2OH.CHOH.CH_2)$. $1:2=C_{16}H_{14}O_4$, the monoguaiacol ester of glycerin.

Actions and Uses.—The chief value of guaiamar arises from the liberation of guaiacol, partly in the stomach and partly in the intestinal canal, being split up by the gastric and intestinal contents with the assimilation of one molecule of water into guaiacol and glycerin. By this evolution of guaiacol it is believed to exert a useful antiseptic action in the intestinal canal. Moreover, it is asserted that it is absorbed by the skin as readily as by the alimentary canal, and that it is without effect on the sound tissue, but becomes effective at the location of the diseased part. It is said not to interfere with the normal process of digestion, but, on the contrary, to be followed by decided tonic action. It is recommended as a substitute for guaiacol in all cases where the latter is indicated. In the form of ointment it has been recommended in acute articular rheumatism. Dosage.—0.3 to 1.3 Gm. (5 to 20 grains) in capsules or dissolved in warm water. Locally, in the form of 25 per cent. ointment with wool fat (lanolin), by itself, or combined with belladonna, zinc or mercurial ointment, etc. Manufactured by Mallinckrodt Chemical Works, St. Louis.

GUAJASANOL.

Guajasanol, $C_6H_4(OCH_3)(CH_2N(C_2H_5)_2.COO).HCL=C_{13}H_{19}NO_3NCl$, the hydrochloride of diethylglycocolguaiacol.

Actions and Uses.—It is antiseptic and anesthetic. It is readily absorbed and splits off guaiacol in the organism with marked facility. Its antiseptic power is said to be about equivalent to that of boric acid. Guajasanol has been recommended for the treatment of tuberculosis, both internally and subcutaneously. It is also recommended as a deodorant and is said to have given good service in putrid cystitis. Dosage.—1 to 3 Gm. (15 to 45 grains) in wafers; subcutaneously, 3 to 4 Gm. (45 to 60 grains) in 20 per cent. aqueous solution; locally it may be used in from 0.1 to 2 per cent. solutions. Manufactured by Farbwerke, vorm. Meister, Lucius & Bruening, Hoechst a. M. (Victor Koechl & Co., New York).

HELMITOL.

A name applied to Hexamethylenamine Methylencitrate (which see). Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

HEMOGALLOL.

An organic iron compound produced from blood by reduction of its hemoglobin by means of pyrogallol.

Actions and Uses.—It is hematinic. Hemogallol is recommended in anemia, chlorosis, chronic nephritis, diabetes and in convalescence. Dosage.—0.25 to 0.5 Gm. (4 to 8 grains), one-half hour before meals in powder with sugar or in tablets. Manufactured by E. Merck, Darmstadt (Merck & Co., New York).

HEDONAL.

Hedonal, $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}(\text{CH}_3)\text{O.CO.NH}_2=\text{C}_6\text{H}_{13}\text{O}_2\text{N}$, a urethane differing from ethyl carbamate, U. S. P., in that the ethyl radicle has been replaced by the radicle of methylpropylcarbinol (pentan-2-ol). $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHOH.CH}_3$.

Actions and Uses.—Hedonal appears to have a greater hyponotic effect than ethyl carbamate. It is said to be followed by no after-effects and is oxidized in the body to urea and carbon dioxide. It is recommended in insomnia due to mental overwork or nervous excitement occurring in the course of neurasthenia or hysteria. It is claimed to be particularly useful preliminary to anesthesia, a hypnotic dose being given and anesthesia effected with chloroform after the patient has been asleep for an hour. Dosage.—1 to 2 Gm. (15 to 30 grains), administered dry, followed by a swallow of water, or in wafers or capsules. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

HEMICRANIN.

A mixture of 5 parts of acetphenetidín (phenacetin), 1 part caffeine and 1 part citric or tartaric acid.

Dosage.—0.5 to 1.0 Gm. (8 to 15 grains). Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

HEMOQUININE.

Each 30 Cc. (one fluid ounce) is said to contain 2.16 Gm. (34 grains) of so-called peptonate of iron (made by adding ammonio-citrate of iron to freshly prepared peptone of egg albumin) and 0.54 Gm. ($8\frac{1}{2}$ grains) of so-called peptonate of manganese together with 0.3 Gm. (5 grains) of quinine peptonate (equivalent to 0.15 Gm. (2.3 grains) of quinine sulphate), and 0.08 Gm. (1.9 grain) of sodium arsenate in a menstruum containing 20 per cent. of alcohol with glycerin and aromatics.

Dosage.—8 Cc. (2 fluidrams) three times a day. Prepared by Schieffelin & Co., New York.

HEROIN.

Heroin, $\text{C}_{17}\text{H}_{17}(\text{C}_2\text{H}_3\text{O}_2)_2\text{NO}=\text{C}_{21}\text{H}_{23}\text{O}_5\text{N}$, a synthetic alkaloid obtained by the acetylation of morphine.

Action, Uses and Dosage.—See heroin hydrochloride. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

HEROIN HYDROCHLORIDE.

Actions and Uses.—When given in small doses heroin hydrochloride has apparently no effect on any of the vital functions except respiration, which it renders slower, the volume of the individual respirations being increased, but usually not sufficiently to compensate the slowing, the result being a diminution in the total amount of air respired. In large doses it may produce dizziness, nausea, and occasionally constipation, and, in pois-

onous amounts, twitching of the extremities, great exhaustion, and dimness of vision may be added. The temperature becomes subnormal and the pulse rapid and thready. The habit is readily formed and leads to the most deplorable results. It is readily absorbed from all mucous membranes. It lessens irritability of the respiratory center, thus allaying cough, but does not depress the respiration as much as morphine. On withdrawing the drug from habitues there is said to be a tendency to respiratory failure which may be dangerous. Heroin and its hydrochloride are recommended chiefly for the treatment of diseases of the air passages attended with cough, difficult breathing and spasm, such as the different forms of bronchitis pneumonia, consumption, asthma, whooping cough, laryngitis and certain forms of hay fever. It has also been recommended as an analgesic, in the place of morphine in various painful affections. Toxic symptoms should be treated by the administration of caffeine hypodermically and of hot coffee by the stomach. To avoid respiratory failure in the treatment of heroin addiction, it has been suggested to substitute morphine for the heroin and then treat the patient for morphine addiction. Dosage.—0.0025 to 0.005 Gm. (1-2 to 1-12 grain) to adults 3 to 4 times a day, the maximum dose being 0.01 Gm. (1-6 grain). To children it may be given in doses varying from 0.0002 to 0.001 Gm. (1-300 to 1-60 grain), according to the age. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

HEROMAL.

Each 8 Cc. (2 fluidrams) is said to contain: Heroin 0.0013 Gm. (1-48 grain), sodium hypophosphite 0.03 Gm. ($\frac{1}{4}$ grain) in a menstruum of malt extract with 6 per cent. of alcohol.

Dosage.—8 Cc (2 fluidrams) every three or four hours. Prepared by Schieffelin & Co., New York.

HEROTERPINE.

Each 8 Cc. (2 fluidrams) is said to contain: Terpin hydrate 0.13 Gm. (2 grains), heroin 0.0022 Gm. (1-24 grain), in a menstruum containing 32 per cent. of alcohol with glycerin and aromatic essential oils.

Dosage.—4 to 12 Cc. (1 to 3 fluidrams). Prepared by Schieffelin & Co., New York.

HETOL.

A name applied to sodium cinnamate (which see) prepared synthetically. Manufactured by Kalle & Co., Biebrich a. Rh. (Merck & Co., New York).

HEXAMETHYLENAMINE METHYLENCITRATE¹

1. This is the chemical name for a preparation on the market under the names of helmitol and urotropin, new (which see).

This substance, $C_6H_8O_7(CH_2)_6N_4=C_{12}H_{20}O_7N_4$, is a compound of hexamethylenamine with anhydromethylenecitric acid.

Actions and Uses.—It is a urinary antiseptic and germicide claimed to be more prompt and energetic in its action than hexamethylenamine, acting equally well whether the urine be alkaline or acid in reaction, rapidly clearing it up and allaying pain. Dosage.—0.6 to 1 Gm. (10 to 15 grains).

HOLOCAINE HYDROCHLORIDE.

Holocaine hydrochloride. $CH_3C(:N.C_6H_4OC_2H_5).$ $(.NH.C_6H_4OC_2H_5)HCl$ $=C_{15}H_{22}N_2O_2HCl$, the hydrochloride of a basic condensation product of parphenetidin and acetparaphenetidin (phenacetin).

Actions and Uses.—It is a local anesthetic like cocaine, but having the advantage of quicker effect and an antiseptic action. Five minims of a 1 per cent. solution when instilled into the eye are usually sufficient to cause anesthesia in from 1 to 10 minutes. It is more toxic than cocaine and without effect on the pupil or blood vessels. It is not so useful as cocaine when the vasoconstrictor effect of the latter is desired. It is said not to cause the scaliness of the cornea which sometimes results after the use of the older remedy. **Dosage.**—It is applied in a 1 per cent. aqueous solution. Manufactured by Farbwerke, vorm. Meister, Lucius & Bruening, Hoechst a. M. (Victor Koechl & Co., New York).

HYPNAL.

Hypnal, $C_{11}H_{12}N_8O.CCl_3CH(OH)_2=C_{13}H_{15}N_2O_3Cl_3$, antipyrine combined with one molecule of hydrated chloral.

Actions and Uses.—Hypnal is an analgesic and hypnotic resembling chloral in its action, but said to be less liable to produce injurious effects on the vaso-motor center of the heart. It may be used where chloral is indicated, as in mild forms of mental excitement, incipient delirium tremens, and in insomnia caused by pain. **Dosage.**—1 to 2 Gm. (15 to 30 grains); although supposed to be less toxic than chloral, larger doses up to 3 Gm. (5 grains) should be used with caution. Manufactured by Farbwerke, vorm. Meister, Lucius & Bruening, Hoechst a. M. (Victor Koechl & Co., New York).

ICHTHALBIN.

A compound of ichthyolsulphonic acid and albumin analogous to tan-albumin.

Actions and Uses.—Its actions and uses are the same as those of ichthyol, with the asserted advantage of freedom from such side effects as nausea, eructations, etc. **Dosage.**—For infants, 0.13 to 0.3 Gm. (2 to 5 grains), in gruel; older children, 0.6 to 1 Gm. (10 to 15 grains), mixed with scraped chocolate; adults, 1 to 1.3 Gm. (15 to 20 grains), in chocolate tablets. Manufactured by Knoll & Co., Ludwigshafen, a Rh. and New York.

ICHTHAMMON.

The ammonium compound of a sulpho-acid obtained from a bituminous mineral by distillation with sulphuric acid and neutralization with ammonia.

Actions and uses.—It has the physical properties of ichthyol, a high sulphur content and, therefore, is claimed to have the pharmacologic and therapeutic properties of ammonium ichthyol sulphonate (see ichthyol). Manufactured by F. Reichelt, Breslau.

ICHTHARGAN.

A compound of ichthyol and silver, claimed to contain 30 per cent. of metallic silver and 15 per cent. of sulphur in organic combination.

Actions and Uses.—It is said to be bactericide, astringent and antiphlogistic. It is reported to combine the bactericidal action of the silver salt with the penetrating and antiphlogistic action of ichthyol. It is recommended in gonorrhea in all its forms as a succedaneum for organic salts of silver. It is claimed to be the strongest in silver content of all the various organic compounds of silver introduced in late years. **Dosage.**—0.04 to 0.2 per cent. solution in gonorrhea; 3 per cent. solution in posterior urethritis; $\frac{1}{2}$ to 3 per cent. solution in trachoma. Manufactured by the Ichthyol Co., Hamburg (Merek & Co., New York).

ICHTHERMOL.

A compound of ichthyol sulphonic acid and mercury, containing 24 per cent. of metallic mercury. Manufactured by the Ichthyol Co., Hamburg (Merck & Co., New York).

ICHTHOFORM.

A compound of ichthyol and formaldehyde.

Actions and Uses.—Ichthoform is said to be antiseptic and antiphlogistic. It is reported to be efficacious in arresting intestinal decomposition and inflammation, whilst non-toxic. **Dosage.**—Internally, 0.6 to 2 Gm. (10 to 30 grains), in powders taken plain, or suspended in gruel or cacao, or as a "shake" mixture; externally as pure powder, as 30 to 50 per cent. triturations, or as 10 to 25 per cent. ointments. Manufactured by the Ichthyol Co., Hamburg (Merck & Co., New York).

ICHTHYOL.

Ichthyol consists largely of the ammonium salts of sulphonic acids derived from the tar of a bituminous shale which is found in the Tyrol and which contains the remains of many fossil fishes. The exact composition and nature of ichthyol is still doubtful.

Actions and Uses.—Ichthyol penetrates the unbroken skin and, it is claimed, acts as a vasoconstrictor on mucous surfaces. It has an antiseptic action and is believed to act as an alterative in consequence of the sulphur which it contains. It is recommended internally in phthisis, skin diseases, gout, scrofula, nephritis, etc. Externally it has been applied in erysipelas, burns, chilblains, carbuncles, rheumatism, ivy poisoning etc., also in uterine and vaginal inflammation, gonorrhea, etc. **Dosage.**—Internally, 0.2 to 2 Cc. (3 to 30 minims) mostly in simple solutions in water. Externally, in vaginal, uterine or rectal suppositories, in 0.06 to 0.12 Cc. (1 to 3 minims) bougies, or 1 to 3 per cent. solution for gonorrheal treatment. Manufactured by the Ichthyol Co., Hamburg (Merck & Co., New York).

ICHTHYOLUM AUSTRIACUM.

A product obtained by the sulphonation of a mineral oil having a large natural sulphur content, neutralization with ammonia, and deodorization and purification by dialysis.

Actions and Uses.—These are claimed to be identical with those attributed to ichthyol. Manufactured by G. Hell & Co., Tropau.

IODIPIN.

Iodipin is an iodine addition product of sesame oil containing 10 per cent. iodine, in organic combination.

Actions and Uses.—Iodipin acts in the system similar to the iodides, being broken up in a manner analogous to that described under bromipin, which see. Its action is more lasting and with less tendency to iodism. Manufactured by E. Merck, Darmstadt. (E. Merck & Co., New York).

(To be Continued.)

BOOK REVIEWS

PHYSICIANS' VISITING LIST, 1908. With special memoranda for twenty-five patients per week. Interleaved. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia. Price \$1.00.

The 1908 edition of this Visiting List is similar in style and make-up to previous volumes. It is a standard for keeping daily records of visits and needs no special comment from us to introduce it.

A TEXT-BOOK OF OBSTETRICS. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania, Gynecologist to the Howard, the Orthopedic, and the Philadelphia Hospitals, etc. Fifth Edition, Revised and Enlarged with 707 Illustrations, 40 of them in colors. Octavo, 915 pages. Cloth, \$5.50, net; sheep, \$6.50, net. W. B. Saunders Co., Philadelphia and London.

No review is necessary to introduce either Dr. Hirst or his textbooks to the medical profession. The new fifth edition of his Text-book of Obstetrics maintains the high standard established by former editions. The author has revised the entire book, but has devoted special attention to the sections dealing with gestational toxæmia and puerperal infection. We find in this, as in former editions, a safe, sane and conservative judgment. The theoretical is made subordinate to the practical. Thus, the author has accomplished well his purpose of preparing a work especially adapted to the needs of the student and general practitioner of medicine without sacrificing the needs of the specialist.

G. C. M.

MANUAL OF DISEASES OF THE EYE. By Charles H. May, Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York. —1890-1903; Ophthalmic Surgeon to the City Hospitals, Randall's Island, New York, etc. Fifth Edition Revised. With 362 Original Illustrations. With 22 plates. With 63 Colored Figures. 1907. Price, \$2.00 net.

In the class, and for the purpose for which it was written this little volume is not excelled. It has been translated into the German, French, Italian, Spanish, Dutch, and edited in England by Mr. Claud Worth. This certainly speaks well for the volume.

We have used this book since its first edition, and find that as an aid to the teaching of the commoner diseases of the eye it serves well its purpose.

McA.

TREATMENT OF THE DISEASES OF CHILDREN. By Charles Gilmore Kerley, M. D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital, etc. Octavo volume of 597 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

Although the author states that his book is not intended for any but the general practitioner, nevertheless it strikes us that its presence amongst the list of books of the specialist would prove invaluable.

Although we cannot say much for most of the illustrations, the general appearance and arrangement of the book is most excellent.

It appears to be, primarily a work of individual experience, large in itself and intensely practical. The author's statement, "having had no recoveries, I am in no position to suggest a treatment," may well be taken as the key-note of the entire work. Further than this, it inspires confidence in the mind of the reader and causes him to feel that those measures which are suggested will, if faithfully tried, prove of value.

In reading the text we are surprised at the scarcity of drugs; this seems to be a decided step in the right direction; and, furthermore, palatability is so constantly urged that were the drug suggestions alone to be followed much greater success would be gained.

The specialist appreciates, perhaps to a greater degree than does the average practitioner, the value of external and mechanical methods of treatment. And as these make up so large a part of the text, the author's object in appealing more particularly to the man in general practice is well attained.

The addition of a final chapter on Gymnastic Therapeutics is somewhat new but, like the rest of the book, is so clearly stated and so practical in application, that it becomes a decided asset to the general scope of the work.

The dose tables and indexes are very complete.

J. E. HUNT.

DISEASES OF THE EYE. By L. Webster Fox, A. M., M. D., Professor of Ophthalmology in the Medico-Chirurgical College of Philadelphia, Pa.; Ophthalmic surgeon in the Medico-Chirurgical Hospital. With five colored plates and two hundred and ninety-six illustrations in the text. D. Appleton and Company, New York and London.

In his preface the author states that this treatise is the outgrowth of a series of lectures delivered by him at the Medico-Chirurgical College and Hospital during the last ten years.

While the work is based on an extended experience, and for which it is valuable, still it belongs to the ever-increasing series of books, "written for the student and general practitioner," which fall far short of their purpose.

Reports of some interesting and instructive cases are given, and as the work is largely based on the wealth of the personal experience of the author it expresses his views of pathology and treatment, for which it has a real value. McA.

INTERNATIONAL CLINICS. Vol. 3, Fifteenth Series. J. B. Lippincott Co., Philadelphia, Pa.

This well known quarterly keeps up its high standard of excellence. Leo Loeb has an illuminating paper on the inoculability of malignant neoplasms. He mentions that Clower found sarcoma develop, apparently spontaneously, in some rats kept in a cage in which some years before Loeb had imprisoned sarcomatous rats. Such papers as Loeb's give us hope for future and useful knowledge. Sweet discourses on arterial suture. His work is most excellent and reliable. The reviewer has had opportunity to examine many of Sweet's results and he has been profoundly impressed by the advances being made by men like Carroll and Sweet in this new field of surgery.

Hugh H. Young contributes an enthusiastic article on prostatitis. Frederick P. Gay's contribution to the experimental study of syphilis is most instructive. The photograph of a section from a chancre showing the spirochaeta pallida, is of unusual clearness.

THE EAR AND ITS DISEASES. A Text-Book for Students and Physicians. By Seth Scott Bishop, B.S., M.D., LL.D., Honorary President of the Faculty and Professor in the Post-Graduate School and Hospital of Chicago; Surgeon to the Post-Graduate Hospital and to the Illinois Hospital, etc. Illustrated, with 27 Colored Lithographs and 200 Additional Illustrations. Royal Octavo, 440 Pages. Bound in Extra Cloth. Price, \$4.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

Prof. Bishop's works are so well known especially in the West, where he has taught and wrote for more than twenty-five years, that there remains little to be said concerning his new book. The portion devoted to treatment will be highly appreciated, for after all what to do and how to do it so as to benefit patients is our chief aim.

The author has devised many useful and practical instruments for the mastoid operation. That he is an artist in this field of surgery many Western otologists can testify because they have seen him at work.

Prof. Bishop very properly gives a chapter on local treatment by sprays and inhalations and gives a large number of remedies for such use. The book is well printed.

HAL FOSTER.

CLINICAL DIAGNOSES A Text Book of Clinical Microscopy and Clinical Chemistry for Medical Students, Laboratory Workers, and Practitioners of Medicine. By Charles Phillips Emerson, A. B., M. D., Resident Physician, The Johns Hopkins Hospital: Associate in Medicine The Johns Hopkins University, Philadelphia and London: J. B. Lippincott Co.

In the preface the author says that the function of the clinical laboratory worker is to aid the ward worker. The findings of the former are seldom conclusive and must be interpreted in the light of the ward findings.

The book is based on the author's experience in the Clinical Laboratory, and as Instructor in Medicine, of the Johns Hopkins University, and upon the clinical records of ward cases, for the seventeen years of the Hospital's existence. There are chapters on the examination of the sputum, the urine, the gastric contents, the intestinal contents and feces, the blood and lastly, various body fluids. Frequent comments on the value of one or another diagnostic procedure or test, as determined by the records of ward cases, are given, this feature adding to the value of the book. The figures in the text, 126 in number, practically all original, are good, and the five plates are excellent. The book is well indexed and well printed. We believe the author has executed his design, to write a book "which will commend itself to the medical profession."

F. E. M.

A MANUAL OF CLINICAL DIAGNOSIS BY MICROSCOPICAL AND CHEMICAL METHODS. For Students, Hospital Physicians and Practitioners. By Charles E. Simon, M. D., Professor of Clinical Pathology in the Baltimore Medical College. Sixth edition, revised. Octavo, 682 pages, with 177 engravings and 24 colored plates. Cloth, \$4.00 net. Lea Brothers & Co., Philadelphia and New York, 1907.

The new 6th edition of this old favorite presents the ever growing subject of clinical microscopy and chemistry in a way that will insure the continued life of this excellent text. The illustrations of the blood stained by the eosinate of methylene blue are particularly fine and useful as this method of staining the blood has largely replaced the older methods both in the hands of the general practitioners and the students of hæmatology. In future editions of this most excellent book the reviewer hopes that the author will economize space by utilizing his plates to represent more material. It seems too bad to use a whole page plate paper to represent six or seven blood cells. In a book of this size ten times the number of illustrations could be inserted without the least impairment of beauty of the work.

This book withal is probably the best balanced clinical pathology available to the American student. It is to be hoped that both author and publisher will resolve to keep it up to the best ideals of a medical public that is rapidly becoming more discriminating.

F. J. H.

METABOLISM AND PRACTICAL MEDICINE. By Carl von Noorden, Professor of the First Medical Clinic, University Vienna. Volume III. *The Pathology of Metabolism.* By Carl von Noorden, H. Salmon, A. Schmidt, A. Czerny, H. Steinitz, C. Dapper, M. Matthes, C. Neuberg, O. Loewi, and L. Mohr. Anglo-American Issue under the Editorship of I. Walker Hall. Published by W. T. Keener & Co., Chicago, 1907. Price: \$6.00 net.

Special efforts have been made to issue this third volume at an early date. While it appears almost simultaneously with the German edition, it has been subjected to considerable revision. Recent English, American and Continental work has been added to the text and bibliography and several sections have been partially rewritten. The subjects dealt with in this volume are the following: Diabetes mellitus, Gout, Obesity, Rarer Derangements of Carbohydrate Metabolism, Diseases of the Skin, Cancer, Children's Diseases, Mineral Waters and Metabolism, Baths and Metabolism, Ductless Glands, Oxaluria, Drugs and Poisons, Influence of Light, Nervous and Mental Diseases, Bone and Joint Diseases, and Diabetes insipidus. The interesting volume concludes with an appendix giving an analysis and the calorific values of all commoner foodstuffs.

These are subjects of particular interest to the specialist and practitioner, and, therefore, have been considered in greater detail than was permissible in the two preceding volumes.

So great has been the demand, that W. B. Saunders Company, the medical publishers of Philadelphia and London, have found it necessary to issue another revised edition of their illustrated catalogue of medical and surgical books. Since the issuance of the last edition six months ago, the publishers have placed on the market some twenty-five new books and new editions—truly an indication of publishing activity. The colored insert plate from Keen's new *Surgery*, which enhanced the value of the former edition, has been replaced by a new one from the second volume of the same work, and this alone gives the catalogue a real value. A copy will be sent to any physician upon request.

THE CENTURY IN 1908.

A new novel by Dr. S. Weir Mitchell, best known and, perhaps, widest read of all American writers of fiction today, will be a strong fiction feature of *The Century* in 1908. "The Red City" is its title, and it is an historical novel of Philadelphia in the time of President Washington, a mate to Dr. Mitchell's famous "Hugh Wynne." It is the romance of a Huguenot *emigre* whose father has been wantonly killed at Avignon by the Revolutionists, and who comes with his widowed mother to Philadelphia. There he falls in love with a young Quakeress, goes into the employ of Hugh Wynne, comes in contact

with Jefferson, Hamilton and other public men; also with a mysterious German and with Aunt Gainor, who figured so largely in the "Hugh Wynne" novel. In it there is a remarkable account of the great plague in Philadelphia and the hero becomes mixed up in cabinet intrigues at a time when the warring English and French factions were embarrassing the President. The story is a true and valuable picture of the time of Washington's presidency, and has to do with him personally. It is strikingly illustrated by Keller.

Another interesting feature will be the article by Dr. Shrady, one of General Grant's physicians in his last illness, and in frequent attendance upon him. Dr. Shrady put on record interesting details relating to the General's last months, of which no satisfactory record has yet been written. The narrative will emphasize, by anecdote and personal reminiscence, the great qualities of patience, heroism and good will which characterized these sad months.

McCLURE'S FOR DECEMBER.

The December *McClure's* abounds in strong features. Burton J. Hendrick's "Great American Fortunes" is the history of the exploitation by a few men of the richest country in the world. The present instalment deals with Ryan and the Metropolitan Railway Company. Cleveland Moffett describes the evolution of the oldest of toys, the spinning-top, into the gyro-car, which bids fair to revolutionize the life of the world. Harry Smith Williams follows this up with "The Gyroscope and Ocean Travel," another use of the gyroscope, which promises to abolish seasickness. President Eliot of Harvard, in "The Canadian Act," gives an interesting account of what the Dominion Government has done to aid in the prevention and settlement of strikes in mines and industries connected with public utilities. Professor Lowell's "The Planet Mars" is the very latest word from our neighbor planet. "Some American College Boys," by Cameron Mackenzie, is a thrilling account of the Cornell University fire, which proves that heroism is not dying out.

Cleveland Moffett has a talent for making machinery interesting to even the least mechanically inclined mind. "The Edge of the Future in Science," is the history of an invention which has been sufficiently perfected to induce the British War Office to back the inventor with \$30,000. This new gyro-car, the invention of a wonder-working Irishman, if it fulfills its promises, will revolutionize human activities. It will bring New York and San Francisco within a single day of each other, while London to South Africa will dwindle down to a six day's trip. And all this in cars thirty feet wide—not cars at all, in fact, but great spinning hotels. There are photographs of this time and space annihilator to illustrate the article.

Dr. John Punton has issued a pamphlet giving information concerning the Punton Sanatorium for Nervous Invalids. During the past six years 1,200 patients have been treated in this institution with a general average of 47 per cent. of recoveries.

AMERICAN MEDICAL ASSOCIATION.

Next Annual Meeting at Chicago, 1908.

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Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Springfield, May 1908.

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Twenty-ninth District.—Councillor, A. R. Snyder, Joplin. Counties: McDonald, Newton, Jasper, Cedar, Dade.

*Counties in *Italics* are not organized.

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Vernon	J. F. Robinson	Nevada	T. McLenore	Nevada
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Washington	J. A. Eaton	Belgrade	W. S. Smith	Belgrade
Wayne	J. P. Sebastain	Patterson	R. J. Owens	Mill Spring
Webster	H. Highfill	Marshfield	Wm. R. Beatie	Marshfield
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JOURNAL MISSOURI STATE MEDICAL ASSOCIATION

Volume IV

FEBRUARY, 1908

Number 8

ORIGINAL ARTICLES

INDICATIONS FOR ELECTROTHERAPY.*

BY CHARLES SHATTINGER, M. D., OF ST. LOUIS, MO.

Mechanical Effects of Electricity. Electric currents have mechanical effects even upon solids. Cohesion is diminished (Wertheim). Movement of mass can be produced. For instance, a globule of mercury in a glass tube filled with a liquid conducting a direct current moves away from the positive pole or anode towards the negative pole or cathode with a velocity proportional to the strength of the current. If the current be reversed, the globule presently likewise reverses its movement. An alternating current may hence be conceived as compelling an oscillation of molecules. A direct current causes movement in the contents of a nerve which it traverses; toward the anode within the fibres, and toward the cathode within the neurilemma.

Liquids may be carried through porous diaphragms by the direct current. The amount which passes is independent of the area or thickness of the diaphragm, and has no direct relation to the electromotive force or voltage of the current, but is proportional to its quantity or amperage. This phenomenon is called electric endosmose or cataphoresis.

Chemical Effects of Electricity. It differs from electrolysis in that the liquid is moved as a whole, whereas in electrolysis the dissociated molecules or ions (i. e. wanderers), change position. Obeying their opposite electric affinities, the anions travel as it were up the path of the current to the anode (i. e. up-road), while the cations journey down to the cathode (i. e. down-road). The ions are thus forced out of their usual orbits by polarization, and chemical changes are added to physical displacement.

All this applies to animal tissue as much as to any other moist conductor. The ions reach the poles in a nascent, and therefore highly active state, either becoming free or entering into new combinations (secondary electrolysis). In the case of animal tissue, there are formed at the anode mainly ozone and acids, at the cathode, mainly

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hydrogen and alkaline bases. Accordingly, the anode is oxydizing, disinfectant, astringent, hardening and coagulating, the cathode, reducing, softening, liquifying and dissolving.

The chemical effects of the poles are utilized for obliterating aneurysms, varices and strictures; for destroying angiomas, nevi, papillomata and superfluous hair; also for intra-uterine cauterization. When the positive pole is made of zinc, or is amalgamated with mercury, then chlorion combines with the metal, giving in addition to the usual chemical effects of the anode, the caustic and antiseptic action of zinc or mercuric chloride.

This is really a special instance of iontophoresis (Frankenhaeuser). For iontophoresis, the electrodes are moistened with medicated solutions—aqueous, alcoholic or glycerinated. With this procedure, medicinal agents are made to pass through the intact skin, giving rise to energetic local and, if desired, even to constitutional effects. The influence of the cations in the solution employed is always obtained from the anode, and that of the anions from the cathode. Silver and other metals, adrenalin, eucain, cocain, quinin and other alkaloids are cations; salicylic and chrysophanic acids, ichthyol, sulphur and iodine are anions. Good results are reported in neuralgia of nerves superficially located, in joint affections, psoriasis and goiter. I have made use of the method with satisfaction in treating carbuncles. Inasmuch as iontophoresis complicates current action by a foreign element, namely drug action, we will not consider it further, but return to simple electrolysis.

The antiseptic influence of the anode appears not to result merely from the development of ozone and acids. It was shown strikingly by galvanization of sterile whey or serum inoculated with colon bacilli, after the current had ceased to pass, and the reaction had been restored (Much, Roemer & Siebert). Reversals of a galvanic current at frequent intervals of course produce corresponding reversals in movement of the ions. The result, however, is not a cancellation of opposite effects, but a generalized loosening of molecular associations, and "a scattering of both sets of ions" (Hall). When diffusion and absorption of morbid products is sought, such changes in polarity may be needed to augment the ordinary, electrolytic action of the direct current.

If the current be undirectional, but regularly interrupted (i. e. the pulsating direct current), there is added to electrolytic dissociation the quasi-mechanic influence of rhythmic thrusts. A rapidly alternating current passing through a conductor of stable composition can not manifest its electrolytic power because polarization and depolarization of the ions neutralize each other too quickly to derange the fixed molecular relations. But animal tissue is in no such stable condition. Destructive and constructive change is constantly going

on, and any force that can disturb chemical equilibrium, however briefly, is likely to facilitate this change. It may be assumed, furthermore, that the more rapid the alternations the oftener the impulse to change will be exerted. So far as animal tissue is concerned, the effect would manifest itself as an "acceleration of metabolism" (Hall), and alternating currents of high frequency should prove more potent in this particular than those of lower frequency, which is the case.

Upon the properties of electric currents as described in the foregoing is partly based their local use for the removal of hyperplastic or inflammatory deposits, if subacute or chronic, but non-suppurative and not yet definitely organized. As suitable examples may be mentioned rheumatic joint affections, orchitis, epididymitis, prostatitis, ovaritis, metritis, para—and perimetric thickenings, and subinvolution. The same properties doubtless share in the general rise of functional activity resulting from systemic applications of the currents in question.

Physiologic Effects of the Direct Current. Although therapeutic indications deduced from known physical and chemic properties of electricity rest on substantial scientific ground, those deduced from its physiologic effects are based on the still more convincing evidence of accurate experiment. The study of electro-physiology dates back so far and has been so thorough, that many of its chapters may be considered as closed.

To begin with, there is the phenomenon of electrotonus. The excitability and conductivity of a nerve are diminished in the vicinity of the anode (anelectrotonus), but increased in the neighborhood of the cathode (catelectrotonus) (Pflueger). The condition is not limited to the stretch of nerve traversed by the current, but extends throughout its length. It is the more pronounced, however, the longer the piece included between the poles.

Upon the law of electrotonus are based all polar applications of the direct current to produce sedation or stimulation. This applies only to nerve fibers proper, however, for the influence of the poles on gray matter seems to be the reverse of what it is on white matter (Loewenfeld). Therapeutically, anodal sedation is not only employed against pain, but also to check spasm. To this end another property of the direct current comes to our aid. Passed through a motor nerve, it blocks the conduction of tetanizing impulses to the attached muscle (Eckhard, Matteuci, Nobili, Ranke, Valentin). This holds good even in experimental strychnin poisoning. Furthermore, with the make of a direct current passed lengthwise through a muscle in a state of contracture (e. g. veratrin poisoning), relaxation proceeds from the anode, and with break, from the cathode.

On the other hand, the direct current may be applied as a most effective excitant. Besides the influence of the cathode, we may avail

ourselves of variations in intensity, for the irritability of nerve is increased by a direct current of medium intensity interrupted or reversed at moderately frequent intervals (Wundt), reversals being the more effective (Brenner). But the variations in intensity must not be too great or too frequent, otherwise irritability is rapidly lowered (Brown-Sequard).

The diminished excitability of a weakened or exhausted muscle is improved by the prolonged passage through it of a direct current (Cyon, Heidenhain, Poore). Even a muscle paralyzed by complete loss of its motor nerve connections, and hence capable of either no or very imperfect response to all ordinary stimuli, may still be aroused to effective contraction by the slow break and make of the direct current (Bruecke). This distinction is shared by only two other modes of excitation,—a form of induced current not used in practical medicine, and the static spark. The importance of this property of the direct current in preventing secondary degeneration of paralyzed muscles is obvious. It is essential, however, that the trophic fibers to the muscles be intact, otherwise atrophy can not be definitely prevented.

Besides keeping a paralyzed muscle from wasting, the excitation of contractions will be useful to awaken what has been termed electromuscular sensibility (Duchenne); that is, the perception of contraction, independent of any concomitant cutaneous sensations. The memory of how contraction feels will thus be kept alive to facilitate the eventual breaking of a path for voluntary impulses.

At this juncture, a word may be said regarding galvanization of the brain and cord. While the fact that these structures are actually traversed by current with external application of the electrodes has been proved by numerous observations, very little physiologic knowledge has been derived from the experiments. On the strength of observations on trephined animals, it has been adduced that with the anode at the nape of the neck, that is, in proximity to the vaso-motor center, and the cathode on the forehead or down along the spine, the pia arteries dilate and circulation is accelerated in the brain or cord respectively.

Reversing the position of the poles had an opposite effect in case of the brain, and either no influence whatever, or a slight contraction of the vessels in case of the cord (Loewenfeld; corroborated by Bennett and Hughes). It might be well to be guided by these observations in treating anemic and congestive conditions of the nerve centers, notably headaches, the cure of which is a common and often successful object of electrotherapy.

Passing a direct current through the spinal cord, especially from above downwards, weakens reflexes (Legros and Onimus, Ranke, Uspensky). Subjectively, galvanization of the spine gives a feeling of increased strength, lightness, elasticity and steadiness of the lower

extremities. Galvanization of the lumbar spine often brings on or increases menstruation (Althaus, Clemens, Good, Neftel). The same also frequently follows the procedure improperly called galvanization of the cervical sympathetic, better, lateral galvanization of the neck (Fieber, Good). Either or both applications may be used against amenorrhea and dysmenorrhea, perhaps in connection with intra-uterine applications of the cathode. Of course, causal treatment will be instituted whenever possible.

The direct current has no effect on vasoconstrictor nerves, but does stimulate the vasodilators whether constant or interrupted (Gruetzner). At the site of application of the poles there is produced a hyperemia free from stasis, more intense and lasting longer under the cathode than the anode (Bollinger, Erb, Remak, v. Ziemssen). The value of hyperemia as a curative factor needs no comment in view of the wide-spread acceptance of the views and methods of Bier. Suffice it to say that the one needful complement to the previously described effects on metabolism is supplied in this active afflux of blood with all its nutritive and defensive attributes.

Physiologic Effects of the Induced Current. Increased blood supply is also a most important corollary of muscular contraction excited by an induced current. Venous return and flow of lymph are favored just as by exercise or massage. The muscle gains volume and strength. It is essential, however, to use either slow, single shocks, or to apply a tetanizing current only briefly in labile fashion, in order to allow ample time for relaxation.

If the antagonist of a contracted muscle is receiving a vigorous application, then its shortening will tend to stretch the contracted muscle (Duchenne). If the contracted muscle itself be tetanized, then extending it becomes easier, since the extensibility of muscle increases while in action (Remak).

To excite either muscle or nerve, an electric current must last at least 0.0015 of a second (Fick, Koenig). Hence, when the interruptions producing an induced current exceed 40,000 a minute, the usual neuromuscular responses are absent. Such a current is by no means without effect. Derived from a coil of suitable construction, the current is one of high frequency and high tension. It readily overcomes the resistance of tissues, and exerts a sedative influence akin to anelectrotonus, while retaining the peculiarities of alternating currents described in the beginning. The special field for this current is to diminish the secretion of hydrochloric acid by the stomach, to allay gastric hyperesthesia, and to subdue pain in the female pelvis not owing to acute inflammation or some gross anatomic lesion. For pelvic treatment, its combination with the direct current often fulfills several indications and gives very satisfactory results.

Sedation can also be secured with induced currents in other ways.

The dry, faradic brush distinctly reduces sensibility to pain (Laufenberg, Rumpf). Swelling currents (Frommhold) are very soothing. Ordinary induced currents, if very strong, are depressing. Mild currents, on the contrary, prove stimulating, increasing the excitability of even weakened nerves (v. Bezold, Engelmann).

Faradization with well-moistened electrodes produces fluctuations in tactile sensibility of only short duration. A very brief diminution occurs immediately after the application, followed by an exaltation which returns to normal in a few minutes. With the dry wire brush, however, the two phases are of longer duration; the secondary exaltation enduring as long as twenty-four hours, so that repeated applications are capable of establishing a lasting increase (Englaender, Rumpf). This is a valuable method for treating hypo- and anesthesia. The faradic brush is also a powerful rubefacient and revulsive.

The influence of external faradization on the brain and spinal cord is not direct, but reflex. Bearing in mind that muscle tonus depends upon the constant surging in of peripheral stimuli, and that gentle excitation of most sensory nerves has pressor and cardio-accelerator effects (Grossman, Naumann), this reflex influence can generally be counted upon to result in augmented muscular tonicity, increased vascular pressure, more frequent pulse, stronger heart-beat and quickened circulation.

Sinusoidal Currents. What has been said regarding induced currents also applies pretty closely to sinusoidal currents. The main difference of the latter is that the contractions excited by them take a longer and deeper hold on muscle. The even rise and fall of the sinusoidal current makes it particularly adapted for stimulating unstriated muscle. The general rule that the more sudden the change in current density, the more energetic the stimulation (Du Bois-Reymond), finds an exception in the case of non-striated muscle which is more effectually stimulated by a gradual variation (Gruetzer and Schott). By properly reducing its voltage, I find the commercial, monophasic, sinusoidal current of 60 cycles to be a powerful and certain dilator of the cutaneous vessels, causing a persisting surface glow wherever the electrode passes.

Central Galvanization, General Galvanization and General Faradization. Electro-therapeutic practice has developed several special procedures whose mode of action is the resultant of, and may be deduced from, the various physiologic effects of the currents so far considered. The procedures in question are hydro-electric baths, and those known technically as central galvanization, general galvanization and general faradization.

The three last named raise mental, muscular and sexual capacity, impart a feeling of bouyancy and invigoration, improve the appetite and digestion, diminish irritability and promote sleep. The peripheral

circulation becomes more active under the influence of general galvanization or faradization. The latter furthermore adds firmness, bulk and power to the muscles, and increases body-weight. It is the method of choice when nutrition and muscular tissue have suffered. Its combination with general galvanization is particularly effective.

Hydro-Electric Baths. Hydro-electric baths (galvanic and faradic) make the pulse less frequent, smaller and tenser; galvanic baths more than faradic (Lehr). They increase the quantity and solid constituents of the urine, especially the excretion of urea, dipolar application being the more effective (Lehr). Motor excitability undergoes a primary exaltation, but with greater current strength and longer duration of the bath becomes distinctly reduced, especially in the galvanic bath (Eulenburg).

Hydro-electric baths have given excellent results in the treatment of all kinds of tremor and diffuse convulsive neuroses; likewise in all conditions of lowered nutrition or nerve exhaustion. They are particularly beneficial in nervous dyspepsia and insomnia. Favorable effects may be also secured in receding neuritis, stubborn rheumatism, and inveterate neuralgia of the trunk or limbs. In these painful affections, the energetic, local action of the hydro-electric douche may be combined with the bath to advantage.

Static Electricity. Static electricity has none of the cataphoric, electrolytic or polar effects of galvanism. It introduces into electrotherapy the factor of electric strain, and emphasizes that of electric oscillation. These factors undoubtedly play a part as molecular forces, but there are no physiologic data concerning them. Otherwise static electricity offers no principles underlying its therapeutic application that have not already been discussed. What was said about metabolism, blood-supply, muscular action, peripheral stimuli, etc., could be repeated here with unimportant variations.

It might be asked, 'Why so many roads to Rome?' To which, this answer: The different forms of electricity employed therapeutically according to essentially the same principles, and for attaining the same general purpose, are by no means identical. There are distinctions which study and experience teach, and which only ignorance or carelessness ignore. The same note sounds very different when played on violin, flute or horn, all of which are needed to complete an orchestra. The effect of mercury can be had from any of its preparations, yet not one of them can replace another, nor be conveniently spared from our pharmaceutical armament.

The effects of static electricity vary greatly according to the manner in which it is administered. The currents dealt with so far move in channels more or less fixed by the generating apparatus, but (given a machine of adequate capacity) static electricity is wholly dependent upon the knowledge and skill of the operator. This is why its effects

can be demonstrated so much better than described. In what follows, I shall have to confine myself to elemental considerations.

As due to static insulation, there have been noted an increased pulse-rate (Stein, Stepanow, Truchot), a trifling rise in body-temperature (Didier, Jallabert, Place, Priestly, Stein), and an increase of blood-pressure (Charcot). To the static breeze have been attributed an increase in the secretion of sweat, saliva and urine (Cavallo, Mauduyt, Stein, Stepanow, Wilkinson), acceleration of circulation and a consecutive rise in body-temperature (Stein). These effects, however, are not constant, and supply no definite, therapeutic guides. More practical is the qualification of static insulation as being at once quieting and strengthening. Clinical experience amply demonstrates this double action in which there is no contradiction; for, is not irritability the first sign of weakness?

The static breeze reduces the excitability of the sensory nerve endings in the skin, and contracts the cutaneous vessels. Surface temperature is lowered, more so by the negative than the positive breeze (Winkler). It is soothing to itching, tender, painful or inflamed areas. By interposing partial resistance to the impact of electrified air, by increasing the discharge, or approaching the electrode, the breeze receives a greater or less admixture of spray, hence may acquire the irritative, rubefacient and warming qualities of the latter in any desired proportion.

Of all static applications, the positive spray develops the most ozone which gives it cleansing and antiseptic activity. A static spray can be made fine or coarse in a range from a delicate brush discharge to a shower of sparks, playing upon the tissues a corresponding scale from a grateful glow to a stinging burn. It is suitable for treating the same diseases as the "effleuve" which will be taken up presently.

Static sparks cause contractions of muscle fibers, even of paralyzed bundles that fail to respond to the induced or direct current (Jallabert, Jolly). They increase muscular excitability and electrocutaneous sensibility. They promote absorption. On the skin, their immediate effect is to produce anemia and a reduction of surface temperature, giving place afterward to hyperemia and heat which last hours.

Static frictions are merely minute sparks for local or general surface stimulation. They accentuate the tonic effect of static insulation. Like the spray, they open up the extensive cutaneous bed to the circulation, thus modifying the distribution of blood and heat.

The static wave current (Morton), potential alternation (Monell), and the static induced or Leyden jar current take us into the domain of small electric quantity oscillating with enormous swiftness under prodigious pressure. They furnish the means for producing at will the sedation of an exquisitely fine vibration, the excitation

of a successive perturbation, or deep massage by a penetrative muscle-stimulation. *That* they do this, daily experience confirms. *How* they do it can no more be explained at present than can the wrenching apart of carbon and oxygen in the silent laboratory of the plant by the kindred oscillations of light.

In what cases shall static electricity be used? The same as those in which general galvanization, general faradization, hydro-electric baths or Arsonvalization would be chosen. To give a list of diseases would only be wearisome repetition. In any given instance, one of the several kinds of treatment may properly supplant the others. Again, two or more may supplement or reinforce each other. There are two classes of cases in which my experience leads me to expect no benefit and even aggravation from general electro-therapeutic measures. They are cases of extreme nervous erethism, and those which, though not insane, are entirely psychic in nature. In these instances, at least, I can vouch for the fact that the purely suggestive influence with which some opponents complacently endow electricity, seems to vanish from the most elaborate collection of apparatus.

Arsonvalization. We now come to the latest additions to the resources of electrotherapy: the currents of d'Arsonval, Tesla and Oudin. Autoconduction and autocondensation, I shall dismiss by saying that, speaking clinically, they appear to have about the same qualities and effects as insulation in connection with a static interrupted current (Morton's or Monell's). Neither will I enumerate the systemic effects claimed for these currents by very competent and conscientious observers, because the existence of these effects is denied by other observers, equally competent and conscientious.

There is a most comforting agreement, however, regarding the very favorable influence of these currents on cervical and intercostal neuralgia, sciatica, erythromelalgia, chronic rheumatism and arthritis, myalgia of the trapezius, rheumatic torticollis and lumbago. Still more emphatic is the almost unanimous praise of the local application of these currents by the "effleuve," and with vacuum and condensor electrodes in certain dermatoses.

The painstaking experiments of Freund with culture-media demonstrated a heating, drying and bactericide action of the "effleuve." Exposure of the skin resulted in definite histologic changes. There was produced: pronounced dilation and fulness of all vessels in its deeper layers; hemorrhagic infiltration with erythrocytes and polynuclear leucocytes; thickening of the intima of arteries, with vacuolization of this coat and, to a lesser extent, of the media. It is apparent that these changes are similar to those obtaining in dermatitis from exposure to ultra-violet or x-rays.

The dermatoses which have shown the satisfactory response to

local treatment as before mentioned, may be conveniently classified as follows:

1. Diseases characterized by fibrosis and chronic cellular infiltration, notably lupus erythematodes and chronic indurative eczema.
2. Disorders in which itching or pain is the essential or an excessively distressing symptom; e. g. pruritus, herpes zoster, fissures.
3. Angioparetic conditions, such as pernio and rosacea.
4. Parasitic affections and those in the treatment of which desquamation may be desired; e. g. furunculosis, acne, seborrhea, ephe-
lides.

The microscopic findings above referred to as shown by the skin after having been subjected to the "effleuve" awaken a significant train of thought. How can something which does actual damage to normal tissue be curative? Is not this literally adding insult to injury? Knife and cautery cure by damaging, but only incidentally and unavoidably, not designedly. But in regard to a great many, probably a majority of remedies, the conviction forces itself upon us that they cure, not in spite of, but *because* of an injury they inflict. The remedy is in reality a stimulus in the original and literal sense, that is, a goad, a prick. Every stimulus may be considered as more or less of an injury against which the organism inaugurates a defensive and reparative reaction. Even that stimulus which has been so slight as to leave no perceptible trace of its disturbance, has nevertheless brought about dissimilation of nervous substance followed immediately by reactive assimilation (Goldscheider). If the reaction to the stimulus is in the same direction as the natural process of repair or compensation in disease, then the stimulus is a remedy. The stimulus which incites the strongest reaction with infliction of the least injury is the most potent and the safest remedy.

The rationale of electrotherapy might be simply expressed by the statement that electricity is a stimulus in the primary and special sense of the word, and thus a unifying principle be shown underlying its diverse actions. As a stimulus, it asserts its place in the ranks of the beneficent agents which help by hurt, and in the generous rivalry there existing, it boasts that, of all stimuli, it is the most precise and flexible in dosage.

2924 South Grand Ave.

DISCUSSION.

AFFIRMATIVE: DR. CHARLES SHATTINGER.

NEGATIVE: DR. M. A. BLISS.

Dr. Bliss: The program committee, I presume, intended that I should discuss the entire paper. There are many applications of electricity with which I am not familiar. I have been concerned in its use only for nervous disorders. We have had a really valuable presentation of this subject this evening, and I have been much interested in the variety of uses to which the various currents can be put. My

experience with electricity as a therapeutic agent covers perhaps ten years, during which I had at my disposal the usual outfit of galvanic, faradic and static machines. I kept no record of my work with electricity, but as the years went on my use of electricity grew less and finally stopped altogether in the treatment of nervous disorders. I have made a list of the disorders in which I used it faithfully, finally despairing of getting any effect. I have spent many weary hours using electricity on the atrophied limbs of children the subjects of poliomyelitis, with no effect. I have used it in cases of syringomyelia and in neuritis. I have tried in locomotor ataxia to bring about certain effects promised by authors on this subject. I used the faradic current to stimulate the bladder, but with only slight temporary effect. I have used it in treating neuralgias, and while occasionally there was a good result, I could not say it was a positive method. Its limitations are rather greater than Dr. Shattinger would consider desirable. In the hemiplegias of children, birth palsies and in localized palsies, e. g., ocular palsies, I used it without sufficient effect to justify the time expended. With cataphoresis I have not had an adequate experience to be able to discuss it. I recognize it as a valuable effect. I also recognize its effect in increasing local circulation, but with these things I have had little experience. As far as the suggestive effect is concerned, I have discontinued its use, for if a large apparatus were necessary to produce the effect the patient would have to carry it around for life, he would be tied to it.

Dr. Shattinger speaks of the calm way in which men dismiss the effect of the current by attributing it to the psychic effect. While physiologists have shown the effect of the current, I believe we must recognize that there is a definite psychic effect. As for diagnostic and prognostic purposes, I feel it is of importance. It often helps to establish the condition of a damaged nerve and thus aids us in determining what the outcome will be.

Dr. Frank R. Fry said: The paper revealed the amount of scientific work that had been done in electricity, i. e., physiological work. He had covered the field perfectly and he had also shown that this investigation had been going on for so long that the profession had looked for something in a therapeutic way to come out of it. Electrophoresis was as empirical as ever. There was nothing scientific in the application of electricity beyond its mechanical or surgical use. It had some diagnostic value, but even this was limited. Distinctions even in poliomyelitis, etc., were now well made without it. Now its chief use in such a case was to pick out muscles for tendon transplantation. Therapeutically it had not much practical use in poliomyelitis; massage, etc., was better. Another use for it was in sensory examination, etc., to establish, for example, the intensity of an analgesia where a pin point failed. The "myasthenic reaction" was some-

times of value in making a diagnosis. This was about the practical diagnostic application of electricity in the hands of the neurologist at the present time. Why had the neurologists gotten away from electrotherapy? It was not prejudice, it was because it was not a convenient suggestive remedy, and suggestion was its main action. It was not desirable to use pretentious suggestive methods and was often a great inconvenience. He remembered the time when his static machine became a nuisance. Patients would admire the big machine so much that they would at once begin to wonder why it was not used on them. The neurologist could not afford to use it. It is too suggestive. And so it was with galvanization and faradization. Every physician knew the pleasant effect of general galvanization or faradization, especially in a bath tub, but the neurologist could not afford to use it that way. He must depend upon the electrotherapeutist for it. For the same reason it was impossible to use hydrotherapy with all the modern elaborate apparatus. There was too much of the spirit of mystery about this apparatus. He remembered when people began sending their patients to him to give them electricity. It became intolerable. One could very soon become an electropath if not careful, because of brilliant cures. It was when doing general work that he had obtained most satisfaction with the battery and he had seen many suggestive results. He had twice seen patients fall off the stool when applying the galvanic battery to the head. In both instances the current had not been turned on when they fell. It was suggestion, of course. Dr. Fry referred to an article in the *Weekly Medical Review* of 1890 in which he had reported the case of a girl of 19 who had been wet-nursing for several weeks. She had an abundance of milk at first, but had some trouble with her employer and at the same time her husband secured a divorce. She had visited the clinic and been treated, but without improvement, and electricity was resorted to. The cathode was applied to the breast, the anode to the back of the neck, the application was for ten minutes. She had stated that she could feel the breasts beginning to distend, and the next day when she called the breasts were distended with milk. This was a remarkable example of the psychic effect of treatment. He also read some statements from an article he had written some twenty years ago in which he had expressed the hope that there would be a complete revolution of all old theories, as the improved means of applying this electricity would make it possible for individuals the world over to intercommunicate their effects. The results of experiments must be accumulated and extensively verified, for even then conclusions might be too hasty and have to be abandoned. The fact was that he had hoped for more than had occurred. Very few who used electricity had been as scientific as Dr. Shattinger had been in his application of it. But the difficulty that even Dr. Shattinger had to contend with

was that it was impossible to distinguish between the subjective and the objective in this work. It was not possible to differentiate between the two in any of his results, and that was the point around which the whole thing revolved. Hydrotherapy gave brilliant results, but suggestion was an important element even in it, and in electrotherapy it was more so because the mystery of the thing naturally lent itself to suggestive effect.

Dr. Chapman said that after about eight years of work with electrotherapy he was getting farther and farther away from the suggestive idea of it. When it came to the suggestive role, the fact was that there was nothing in the whole scope of therapeutics but might not be ascribed to suggestion. Even in surgical procedures suggestion had an effect, and all knew of cases that had been operated on without the desired result, being told that the patient had as much trouble as before because the suggestion was not sufficient. Gravitation was not considered empirical because nobody knew what it was, yet it was just as much of a mystery as electricity. There was no other force in nature so under control as electricity. It was an absolutely unknown thing, yet man could do whatever he liked with it. If it was possible to do with it all that had been done, why was it not possible to do something with it in medicine? Dr. Chapman did not agree with Dr. Fry that it had passed out of use of the medical profession. The difficulty so far seemed to have been that there was no time for the use of it. For the average patient it required from half an hour to three-quarters of an hour, yet if by so doing it were possible to cure a patient who otherwise might pass along hopeless, helpless and in despair, he preferred to do what he could. It might be that he would some day get to the point where he had not the time, but he had not yet reached that point. For example, was there anything that responded more quickly to static electricity than the neurasthenic patient. He believed that any patient could be cured in from twenty to twenty-five treatments. In all those patients where there was a suicidal tendency, after three or four treatments there was no further inclination. It was not fair to call the man who used electricity an electropath. It was his business as a practitioner to use whatever had the desired effect, and for that reason he would use electricity in so far as he found it useful, whether it was suggestive or not. In Chicago, Boston, New York and Philadelphia, large numbers of men had given up their time to it for no reason but because it was a useful agent.

Dr. Wm. W. Graves said that a discussion of electrotherapy was very much like a discussion of religion. Both were largely matters of faith, of belief. The electro-therapist had faith in his batteries and in his ability to apply the remedy properly, just as the homeopath had faith in the potency of his dilutions and the voodoo doctor in the

efficacy of his charms and incantations. It was proper, however, to question the basis of faith, which was largely based upon experience, but experience, as all would admit, was fallacious, and one's judgment was often poor and this was notably true especially when dealing with therapeutic procedures. But that therapeutic principle which was founded upon truth would endure, and that which was founded upon error would pass away. There was probably an element of truth in every therapeutic endeavor, though but few, proportionately, had a really scientific basis. Fortunately, whatever form one's therapy might have, there was a force constantly at work in every morbid condition, which was founded upon truth and that was the power of nature to cure herself, and it was the speaker's firm conviction that the physician who relied mostly on this was the safest and best therapist. It had taken the medical profession hundreds of years to recognize this truth and the physician who did recognize it would always have this principle to guide him. He would not arrogate to his remedies a power greater than nature's. He would assist her, but never aspire to be her chief. There was a time in the history of the profession when symptoms stood for disease and that physician was considered the best who knew a remedy for every symptom. In that dim and hazy past little was known of pathology and of morbid conditions as they were known today and in that dim and hazy past electrotherapy was born. It had been before the profession more than a hundred years and the cures ascribed to it had bordered on the miraculous. Strange as it might seem, with such a record, the whole profession had not seen the efficacy of electricity as had the few. One might be safely guided by the opinion of the whole profession concerning the efficacy of a certain procedure. The whole profession might be wrong for a season, but never for a century. The fact that it had not been adopted generally was because it had no striking merit. The exponents of electricity claimed that it was because it had not been applied properly, that it was because the physician was ignorant in its application that he did not succeed in its use. The medical profession replied that the patients cured by electricity were as readily cured by other means. The medical profession did not doubt its chemical effects as in electrolysis; its cataphoric action; its mechanical effects in the stimulation of motor nerve and muscle; but they did not believe it was a panacea, as its enthusiastic exponents would have them believe, and that it produced results not obtainable by other means, they absolutely denied. The speaker had at one time considered himself a fairly good electrotherapist, although he had never given it the careful consideration that Dr. Shattinger had, but he had seen the same kind of cures. He had cured almost every condition or had thought that he did, but he had later found that those patients went to some one else. He had effected all kinds of cures with electricity and studied the subject as he never had any

other before or since. He had had unbounded faith in his batteries and in his ability in the application of them and the cures he had wrought with electricity while in North St. Louis in general practice were to him, at that time, entirely satisfactory. He had found electrotherapy profitable and that it pleased his patients, and after all what did the average doctor want more than to get profit to himself and to please his patients? But he had had a change of heart and wanted to confess the fact. At that time he had been engaged in general practice. Since that time he had tried to become a neurologist and Dr. Fry had so well expressed his sentiments from the neurological standpoint that anything he might say would be but useless repetition. It was, however, because of the suggestive effect of electricity that he did not use it in his practice. The proper form of suggestion was one absolutely free from all mystery, it was the effect one needed to aid the patient to become a free and independent being. It was not possible to do that by the use of electricity and for that reason he did not use it. Therapeutic endeavor is a question each individual must settle for himself, and it was a question not open to argument. Among neurotics, where electricity had had its greatest inning, electricity should never be employed, for the chief object in these cases was to put the patient into a condition where he could help himself. The only way to do that was to take the individual by the hand so to speak, and help him on. Only recently Dr. Chapman in a very able paper had vaunted static electricity in cases of lowered nutrition. Why not improve that patient's nutrition by increasing his food supply? If he needed work, let him work, if he needed rest, let him rest, but there was no place in the treatment of neurotics for electrotherapy.

Dr. Shattinger, in closing, said that he felt flattered to have been deemed a target worthy of the distinguished gentlemen who had consented to take part in the debate. In the Society, hitherto, it had proved impossible to draw the opponents of electrotherapy out from behind the entrenchments of a convenient ridicule into the open field of serious argument. He had been particularly pleased in finding that the Committee had chosen Dr. Bliss as chief champion on the negative side, for he esteemed Dr. Bliss as a practical and fair-minded observer. Against Dr. Bliss, he really had no point of attack, but found himself quite in harmony with his views. Dr. Bliss had mentioned a number of conditions in which electricity, after most patient trial, had failed him, and it was not surprising, for they were conditions in which electricity could not be expected to accomplish anything. The conditions enumerated were mainly organic diseases of the spinal cord almost hopeless under any kind of treatment. He had also expressed his disappointment in the results of electrical treatment of the paralyzed muscles in anterior poliomyelitis. After the trophic centers have been destroyed in this disease, no amount of elec-

trical applications can save the muscle from wasting, as was pointed out in the affirmative paper. Many of such disappointments in the use of electricity are no fault of the agent, but of inadequate knowledge concerning it. In common with dietetics and the other branches of physical therapeutics, electrotherapy receives most step-motherly treatment in our medical schools. At Berlin and Rome, physical therapeutics is part of the regular curriculum of their universities, with special chairs and a sumptuous equipment devoted to its teaching. Until similar instruction is afforded in this country, the profession in general can not be expected to employ physical methods of cure correctly, nor can the advocates of such methods be expected to receive other than the usual consideration accorded those ahead of their time.

Some of the objections made against electrotherapy, appeared puerile to the speaker. For instance, Dr. Fry complained that his patients had been so taken with the static machine that they forgot to look at the doctor. This difficulty might easily have been obviated by putting the machine in another room. The factor of suggestion troubles the neurologist of to-day exceedingly—he seems to have gone suggestion-mad. With the probable exception of a major surgical operation, is there a single, therapeutic measure in which suggestion can be counted out? The neurologist, however, discards all complicated-looking apparatus, lest his prescriptions become adulterated with suggestion. But he fits up a waiting room with elegant mahogany furniture, displays an imposing array of volumes in carved cases, diplomas and other evidences of distinction in his private office, wears fine clothes, and last, not least, charges ten dollars for the consultation. What is this, if not suggestion? Again, the neurologist is afraid of being considered an "electropath." In language adapted to the understanding of his patient, he explains the nature of the case, and finally says, "You see, these things you think exist, do not exist," quite unconcerned as to the liability of being considered a Christian scientist. Tabes, he treats by a system of movements intended to form new co-ordination paths, indifferent to the risk of being thought an osteopath. The accusation that the use of electricity is based purely upon empiricism would seem to be refuted by the speaker's paper which gave in detail the scientific evidence to the contrary. But aside from this, why make the accusation of empiricism against electricity more than against any other mode of treatment? Is not every therapeutic measure in the last instance empirical? No matter how thoroughly any procedure may be subjected to laboratory trial, and no matter how completely the physician's mind may be satisfied as to the how and why of the result, the final test must always be the patient. There is no intention to force the use of electricity upon the neurologist, but the same fairness is demanded towards this remedy as towards any other. If, as Dr. Fry says, "the neurologist has no time

to use electricity" being mainly engaged "in sifting his cases," let him at least not make this fact an argument against the measure itself. Dr. Shattinger felt obliged to Dr. Chapman for seconding his efforts, but, in evidence of his unbiased attitude, would state that he did not believe neurasthenia could be cured by twenty-six treatments on the static platform. The conviction had been forced upon him that the man who said neurasthenia was never cured came very near the truth. Neurasthenics often improve, continue better for a long time even, then return with a totally new set of complaints depending, however, on the old nervous defect. General electrical procedures may nevertheless greatly benefit the neurasthenic in so far as they can remove an underlying or associated debility. Instead of citing cases of his own to demonstrate the value of electricity, the speaker said he would refer to the case Dr. Fry had mentioned of a wet-nurse in whom two treatments sufficed to bring milk into the breasts. Possibly because nothing in the whole range of materia medica is capable of achieving such a result, suggestion is as usual offered in explanation. But the mode of application was precisely such as would tend to bring an extra supply of blood to the breasts which probably needed only this much of a stimulus to enter upon their natural function. Granted that the element of suggestion can no more be eliminated from this case than from any other, why will not an induced hyperemia serve as well for explanation as suggestion? Which is the more satisfying explanation to the scientific mind? To the patient, of course, it made no difference. She wanted milk, and she got it. The speaker agreed fully with Dr. Graves in holding that the main thing is to "get the patient on his feet." Let it be done in any and every way possible! For instance, here was a patient with one knee-joint ankylosed, big and painful, the remnant of a severe attack of articular rheumatism. This patient had been treated in Chicago by several physicians, then in St. Louis by an eminent surgeon and his assistant. The knee had been in plaster a long time, and any amount of potassium iodide had been swallowed. On taking charge of the case, the speaker stopped all medication, and used massage, passive motion and the static sparks. Almost complete restoration of function was obtained, and that patient was literally gotten on her feet. It might be claimed that this result might have been attained without the electric treatment, but the doctor remembered well with what joy he and his patient hailed the first feeble response of the atrophied and powerless muscles to the static spark. Again, here was a case of true nervous dyspepsia. The patient had been under treatment in the orthodox way by a gentleman of wide reputation and high medical attainments. She, too, was not on her feet, but in bed, vomiting all she ate. A course of hydro-electric baths with a judicious diet stopped the vomiting in two days, and produced a gain in weight of twelve pounds in one month.

Dr. Bliss, in conclusion, called attention to the fact that Dr. Shattinger had stated that the things in his list of conditions treated unsuccessfully by electricity were the things that he never would have treated with electricity; yet a recent publication (Oppenheim) on the subject mentioned those very conditions as suitable for the use of electricity. He felt that the experience he had given was a fair expression of the neurological attitude toward electricity.

THE OMENTUM AS A SURGICAL FACTOR.*

BY T. E. POTTER, M. D., OF ST. JOSEPH, MO.

When a medical student many years ago, but little was said of the omentum. Outside of the descriptions in ordinary anatomies, we were almost ignorant of the functions it performed. Thanks to modern study, we have learned that it is a most important structure.

Instead of being created to act merely as an apron, spread over the front part of the intestines to keep them warm, it has been clearly proven to be both a great protective and reparative agent to all that is within the abdominal cavity, as well as sharing its portion in the relief and salvation of other parts of the body.

The anatomist has divided the omentum into the lesser omentum (gastro-hepatic), greater omentum (gastro-colic), and the gastro-splenic, the portion that connects the concave surface of the spleen with the cul-de-sac of the stomach, being continuous at its lower border with the great omentum. It contains the splenic vessels and the vasa brevia.

According to Gray "the great omentum is the largest peritoneal fold." It consists of four layers of peritoneum, two of which descend from the stomach, one from the anterior, the other from the posterior surface and uniting its lower border descend in front of the small intestines so low down as the pelvis; they then turn upon themselves and ascend again to the transverse colon, where they separate and enclose that part of the intestine. The separate layers may be easily demonstrated in the young subject, but in the adult, they are more or less inseparably blended.

The left border of the great omentum is continuous with the gastro-splenic omentum, its right border extends so far only as the duodenum. It contains within its layers of peritoneum, fat, which is extensive in persons who are suffering from obesity, but in those who are very much emaciated its globules of fat are scant.

The lesser omentum is the duplicative, which extends from the transverse fissure of the liver and the lesser curvature of the stomach. It is very thin and consists of two layers of peritoneum. The right border forms a free rounded margin, which contains between its layers the hepatic artery, the ductus communis choledochus, portal vein, lymphatics, and the little hepatic plexus of nerves; all these structures are enclosed in loose areolar tissues, called "Glisson's capsule."

The retrograde space, which includes the space between the folded peritoneum not obliterated by adhesions of its surface, is known as the cavity of the great omentum. This great omental cavity is connected with the general cavity at the right of the stomach through the for-

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amen of Winslow. The foramen of Winslow is bounded in front by the lesser omentum enclosing the portal vein, hepatic artery, and hepatic duct; above by the lobus Spigelii; behind by the inferior vena cava; and below by the hepatic artery curving forward from the celiac axis.

The vascular supply of the omentum is most extensive. In operating as every surgeon can testify, the arteries and veins are plainly to be seen. When the omentum is cut or torn, they are ready to bleed freely. The arteries come from the gastro-epiploica dexter, which is given off from the hepatic, and passes along the greater curvature of the stomach from right to left, to anastomose with the gastro-epiploica sinister, which comes from the splenic. These two arteries give off many small omental branches. The return of venous blood is poured into the portal circulation. The lymphatic is extensive, and empties itself into several glands, on the greater curvature of the stomach and finally into the receptaculum chyli. The nerve supply has not been made out, although we know where we have vessels, we also have vasa motor nerves, dilators and constrictors.

The omentum is constantly moving up and down, to the right and left side of the abdomen, due to muscular movements of the diaphragm and walls, and peristalsis of the bowels. This assists in lubricating the abdominal cavity by allowing fat globules as well as leucocytes to escape upon both the visceral and parietal layers of the peritoneum.

Histologies tell us that in the omentum are numerous lymph spaces, germinating endothelial cells, found in the act of division, and the cells in many instances assume amœboid movements. It also has numerous fibroid cells.

Dickinson says, according to Klein: "The lymphatic tissue in the omentum being possessed of a special system of blood vessels, may at one time functionate as connective tissue, or at another time as fat cell tissue."

Another histological point is that it is said "on the surface of the peritoneal cavity were stroma, through which fluid passed freely to the lymphatic channels." This accounts for the readiness with which fluids are absorbed from the peritoneal cavity. This is not a new idea, as we, when teaching physiology a number of years ago, were impressed by reports of numerous experiments, that when milk was introduced into the peritoneal cavity, there was rapid absorption, and the lacteals were, on destruction of the animals, found filled with this fluid.

One of the important functions of the omentum, loaded with blood vessels and lymphatics as it is, is its power of absorbing fluids from the cavity. It will also take up and encapsule solids and where we have left in the abdomen clots and other material, and say "the peri-

toneum will take care of them," we have no doubt this function is largely performed by the omentum.

It has been demonstrated that it will not only absorb fluids and solid particles, but where there is some extensive interference of the circulation of the spleen, if the omentum is thrown around this organ, it will not only care for it and not allow it to become gangrenous by establishing an anastomotic circulation, but will in time absorb the spleen and take on its function.

We are fully persuaded that in appendicitis, where there is so much effort on the part of the omentum to wall off the disturbing factor, and, when it can no longer be fed by its own circulation, and becomes lifeless, the omentum makes an effort to absorb it, or re-establish a new circulation to the offending member through its adhesive attachment, and, in its failure, a new wall is rapidly made by its constituents, as well as itself, to protect the cavity from further infection.

As a phagocytotic agent, which it clearly proves itself to be, it makes every effort to repair, preserve, and protect all the organs in the abdomen. We have just mentioned what efforts it makes to preserve the spleen, and after it is gone, assumes its functions.

In various cysts, where the circulation is not sufficient to maintain it through the pedicle, the omentum attaches itself by adhesive inflammation to the walls of the cyst and establishes a free and preservative circulation that enables it to grow. This also takes place in large tumors of the uterus; for example, where a myoma is large and without sufficient nourishment and for the necessary lack of blood supply is threatened with death, a collateral circulation is established through the omental blood vessels, which maintains its life, and enables it to continue to grow. If time would permit, we could cite numerous cases of our own to fully confirm this statement.

In omento-pexa valuable results have followed in the cure of ascites associated with cirrhosis of the liver.

Kogloosky tabulates 168 cases from literature. "In the first group of 59 cases, the liver was enlarged; more than 50 per cent. was cured or improved (16 cured and 10 improved). In the second group of 69 cases with atrophic liver, over 42 per cent. was improved (18 cured and 11 improved). In the group of 48 cases, in which the liver was normal in size, more than 47 per cent. was improved (14 cured and 9 improved). This gives a total of 78 improved, 7 in which the issue was unknown and 83 in which no improvement was realized.

The earlier the operation is undertaken the better the prospects, and especially when the liver is in a state of hydropsy."

In the operation, omento pexa, the omentum should be so secured to the abdominal wall as to establish the most extensive amount of collateral circulation, the object being to relieve the portal circulation in cirrhosis.

A fatality reported in the *Journal of the American Medical Asso-*

ciation, November, 1905. of omento-pexa, was due to the laceration of a blood vessel from adhesion followed by great hemorrhage. If the surgeon had discovered this accident in time, and ligated the vessel, this disaster could have been avoided. The fixation of the omentum to the abdomen should be high up so this accident could not occur.

Transplanting the omentum over weak points in the intestines for their protection has been practised with good results.

W. J. Mayo, in gastro-enterostomy, has recommended fixation of the omentum with catgut sutures around the point of anastomosis in the anterior operation. Emmanuel Senn, after a series of operations upon lower animals, had poor results, owing to the large openings made in the intestines, and his animals died of collapse or from peritonitis. In his article, he came to the following conclusions:

First: Transplantation of the omentum over defects in the stomach is an established operation.

Second: Transplantation of the omentum over intestinal defects is recommended, but is still in the developmental stage.

Third: Transplantation of the omentum over defects in the cecum is the most favorable portion of the intestinal tract.

Fourth: Transplantation of the omentum over defects in the small intestines should be done only after fixation of the segment of the intestine to the abdominal wall.

Fifth: Gauze drainage should be resorted to, excluding the general peritoneal cavity."

A short time ago, we were asked to take charge of and operate upon a patient for appendicitis, as the doctor to whom the patient had been brought was obliged to leave the city. We made an examination of the abdomen; from the history of the case, found the man had been sick with an abdominal trouble for about six weeks, and that a tumor had been felt over the cecum for several days. He was not very tender, and he had but slight if any elevation of temperature. His pulse was about 100 per minute. We had him prepared and waited about forty hours before making the operation. We opened the abdomen and found adherent to the abdominal wall, a good deal of thickened omental tissue. We loosened it and then found it adherent also to the lower portion of the ileum. We separated it and found five typhoid perforations completely opened into the lumen of the bowel. We removed the thickened omentum and closed the typhoid perforations with Lembert sutures. The patient made an uninterrupted recovery. We believe these perforations were so secure that the patient would have recovered in time without an operation. There was no pus.

This case demonstrated to our mind the value of the omentum in such conditions. This organ is always on the alert, and in wounds made in the abdomen or breaches from tears, it at once seeks the defect. So we have herniæ openings plugged with omental fat. We find it presenting itself at once when an incision is made, and in oper-

ating, we find it most troublesome to keep out of the way of our work.

As the abdominal cavity is greatly exposed to infection from pathogenic germs, by its pathogenic functions it has the power in many instances,—of cleaning and preserving the abdominal cavity and organs from infection, and hastens recovery.

In several instances we have observed that if the omentum is small or very short, the patient does not do very well. In one case, a boy thirteen years old, we removed a good deal of the omentum because we thought it had been too much exposed, and our patient was an unusually long time getting well.

The omentum may become infected in tubercular peritonitis first in its effort to preserve its neighboring tissues.

Owing to its great supply of blood vessels, other organs like the brain, lungs, and kidneys, in time of congestion and blood tension are relieved of the strenuous conditions to which they are subjected, and much good accomplished from its maintaining an equilibrium of blood circulation.

We believe this principle is fully true, that in our operative work we should make every effort to preserve this important structure, and none of it, except that actually diseased, should be removed, for loss of it through operation renders the patient less able to resist peritoneal invasion.

In a short paper like this, to discuss at length, or to even call attention briefly to all the important phases of this subject is impossible. We should feel that we had failed in our purpose if we did not mention benign and malignant growths, volvulus, and abscesses of the omentum, as well as the rolling up of the apron of fat which forms a mass in the neighborhood of the transverse colon, which may be mistaken for a large tumor. The rolling up may so far interfere with the omental circulation as to cause considerable ascetic fluid in the peritoneal cavity. This may be entirely corrected by unrolling and placing the omentum in its normal position.

Volvulus of the omentum does in some instances produce anemic necrosis which may sooner or later develop a general peritonitis.

In short, omental tissue, like other tissues is subject to inflammations, growths, benign and malignant tumors and other diseases.

DISCUSSION.

Dr. Reder, of St. Louis: I think an individual with a large omentum very fortunate. I was once asked what I thought the use of the omentum was, and not knowing exactly (I know more now since I have heard Dr. Potter's paper about the usefulness of the organ), I remarked that I thought the omentum was nothing more than the policeman of the abdominal cavity, it usually came to the rescue of an organ in trouble. It also afforded a certain amount of protection to the abdominal viscera.

Now, as to the partial development of the omentum in the young,

my attention has often been called to this in operative procedure upon children, especially in operations for appendicitis. I often found that appendicitis was more prone to excite general peritonitis in children than in adults, most likely due to a loss of the physiologic activity of the omentum. Dr. Tupper's remarks, I think, give good reasons to show that such might be the case in infants who have not had the proper protection during their babyhood days. What nature has given us in regard to the protection of organs in the abdominal cavity we try and imitate in our operative work. For instance, in intraabdominal raw surfaces we try to cover over either with peritoneum from the immediate vicinity of the exposed surface or with omentum, if it is within reach.

Dr. Potter, in closing: I wish to state in conclusion that we cannot over-estimate the value of the omentum as a protective and preservative agent to all organs within the abdominal cavity, whether normal or the result of pathology. To show what it will and does do along this line, a case in point will serve to illustrate: A short time ago I was called upon to remove an ovarian cyst. Its attachment through the pedicle to the uterus and appendages was very small, and the blood vessels from this source were not sufficient to nourish it; but on the margin of the cyst there was a firm and broad attachment of omentum containing large blood vessels and these furnished this cyst with its principal blood supply.

CHOLECYSTECTOMY vs. CHOLECYSTOSTOMY.*

BY WALTER U. KENNEDY, M. D., OF ST. LOUIS, MO.

Since in all surgery, the constant endeavor is toward the most thorough work, the writer desires to offer in this paper the reasons why the operation of cholecystectomy should be preferred as a general procedure to cholecystostomy.

Moynihan has very clearly set forth a set of indications for cholecystectomy. But to his observations may be added others, based not only on the writer's experience but also on the experiences of a large number of representative American surgeons as given in recent personal communications. There can be no question but that cholecystostomy is becoming more generally looked upon as a palliative and is, at least by Americans, being limited to the unusual cases, while cholecystectomy is the ideal to be attained if conditions permit, and these limitations to cholecystectomy are becoming less as operative skill and experience increase.

Gallstones of themselves are not usually troublesome but the subsequent inflammatory conditions require our attention. Cholecystostomy is essentially a drainage operation and since usually the inflammation is confined to the bladder, its removal does away with the chief need for drainage. It is uncommon to find much inflammatory reaction in the ducts, aside from the cystic, and while stones may form in the ducts it is so uncommon as to be negligible. When stones are in the ducts they are commonly wanderers from the bladder.

The disadvantages of cholecystostomy as a routine procedure are not only the retention of an inflamed and diseased bladder, which will rarely again be a bile reservoir but mainly due to the traction exerted by the attachment of the bladder to the abdominal wall. The subsequent life of many of these patients is not much to be preferred to the preoperative stage and we should be governed in estimating the value of a procedure as much by the future comfort of our patient as by the present recovery.

A condition to which I especially call your attention is the angulation and possible obstruction of the hepatic and common ducts due to the pull incident to the abdominal wall attachment. This is particularly likely to occur in those cases which show small bladders or those which are the seat of a severe grade of infection and in which cicatricial shortening must inevitably occur.

I have known of one death from such a cause and its possibility and probability demand serious consideration. No doubt many of the cases of colic subsequent to cholecystostomy are due to this angula-

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

tion and obstruction and not to further stone formation, as is generally ascribed.

Again in those cases wherein ulceration, erosion or other destructive agency has affected the bladder wall, cholecystostomy offers no sure protection against a continuation of the process and a subsequent perforation and peritonitis.

That complete removal of the bladder does not do harm to the physical well-being is substantiated by recent reports from physiologists and clinicians and that the removal of a tissue which is indurated and damaged to a degree which cannot be accurately known at the time is more conducive to future safety and prophylactic against malignant degeneration, must be admitted.

The drainage externally in those cases where it is unavoidable may as well be done by tubes carried down to the hepatic or common ducts as through the bladder. Moreover, the lessened need for such drainage when the chief cause of its necessity, the bladder, is removed, amply controverts the argument that the bladder must be preserved to use as a drainage duct.

When the common duct is occluded, cholecystostomy will give relief, but against that it must be admitted that the relief is but temporary, and if a permanent fistula is to be avoided an operation must be done upon the common ducts and they are then always directly drained, which again disposes of the necessity of using the bladder for drainage.

So far as the rapidity of operation and need of special skill, one operation is about the same as the other but the possibility of infection, if the common duct be patent, is less with the radical operation, especially if the cystic duct be clamped at once by two forceps, divided between them and the bladder enucleated from below upwards leaving sufficient peritoneal coat so that the raw surface may be covered in; an eminently easy and rapid operation with about the same danger of peritoneal infection that there is in amputation and inversion of the appendix.

The greater insurance against weakness and hernia of the abdominal wall due to better closure is but an added factor in favor of the radical procedure.

There are some cases in which cholecystostomy must be done but the indication, which is agreed upon by my correspondents and which, in my opinion, is the only real one, is in the cases where an obstruction exists in the common duct and the patient's condition will not permit the proper treatment of the duct.

Apart from this, the thoroughness of the operation of cholecystectomy and its freedom from distressing sequelæ make it the operation of election and preference.

DISCUSSION.

Dr. H. E. Pearse, of Kansas City: In the consideration of the

patient whose bile-ducts have become occluded from calculus, we have a problem before us that has brought to my mind one thought that to me is new. I have never seen it in any of the writings of those who know more about this matter than I do, and I may have stumbled upon something that is of value, and I may not. I will give it to you for what it is worth. In all the efforts of the surgeon to relieve the patient, he must be guided by the efforts of nature prior to his interference. We usually find the peritoneum sentient of its own welfare, and as a rule the lesions or adhesions that take place when invasion from without gains a foothold in the peritoneal cavity, are worthy of study. The lines of adhesion are certainly valuable guides. Now, there has never been advanced a thoroughly satisfactory opinion as to the purpose of the gall-bladder, but it has occurred to me that the gall-bladder does at least offer this possibility of study: The functions of the liver are absolutely essential to life. It cannot, like the appendix, be removed and the patient be the better therefor. There must be poured from the liver into some channel that will reach the outer world several pounds of excretory matter each day.

In operating upon these cases, I have been struck with the fact that when the common duct has become occluded, the tendency of nature is to make use of that residuary bile-bladder, which cannot possibly be of any value for carrying off the bile. I have been impressed with the fact that that gallbladder was a vicarious method of elimination, a vicarious outlet without the interference of the surgeon. It easily attaches to the gut, perforates and forms a new mode of egress for the bile. I like to do the operation the doctor speaks of—it is so quickly done and leaves such a clean field, and the entire removal of the gall-bladder simplifies the situation so nicely, until the duct is blocked. Now, I dare say there is not a surgeon here who has not saved the life of his patient by making an anastomosis through the gall-bladder with some part of the intestine, when he has found malignant disease which has permanently destroyed the outlet of the common duct. We should always remember, however, that we have there one means by which the stream of bile can be diverted when the natural outlet of the common duct is lost; that it can be diverted through the gall-bladder into some other channel, and thereby allow the patient to live and the liver to perform its function.

Dr. W. U. Kennedy, of St. Louis: The point made by Dr. Pearse is very well taken. I think the doctor and I are quite in accordance, His observation is one based upon not only common-sense but upon the right conception of what nature is attempting to do; and our success as surgeons largely depends upon our attitude in following the dictates of nature in these cases.

MEDICAL SCRAPS.*

BY T. F. LOCKWOOD, M. D., BUTLER, MO.

In selecting an original subject, one that carries with it a laudable purpose, that of interesting and enlightening my hearers, I find it no small task indeed, so thoroughly and so frequently has the field been worked in search of such medical and surgical lore as best fits our fancy in formulating scientific articles worthy of consideration. In view of this important fact that surgery's fascination has lured us from the original paths of common medicine, I have endeavored therefore, to avoid the sign-board highway of the profession that ultimately leads to the chief domain of surgery, and gathered up chips and crumbs that have fallen from the hands of busy practitioners of medicine and surgery in their great haste to reach the utmost heights of their ambition. In other words, I have undertaken to repa or plac out dust enough to form a nugget that may shine with appreciable luster to those who enjoy an essay different from the usual trend, and if I fail in this my chief aim, I hope to be pardoned for the imposition inflicted and will quietly hie away to more favorable fields, entering the race with the "Sooners" in search of gold found in surface minds of medicine. With these preliminaries, I shall enter upon my subject proper, taking for an introductory chapter, worms, a common-place subject.

What has really become of these verminating pests? This question may come often to the minds of physicians who have long been in the field of action and have had many interesting experiences in their encounter with children's diseases in the past, and a convincing answer is as slow in coming to them as to one of more recent experience. Physicians over forty will remember when worms were plentiful, being a household companion wherever children abided and constituting three-fourths of all the ailments among children. Many of the older physicians have seen hundreds of worms and perhaps been victims of them when boys, and too, when apparently in the best of health. It was not uncommon for children to pass lumbricoids involuntarily when in perfect health, but children of this fastidious age would be greatly frightened if a large lumbricoid should make his exit and suddenly appear upon the scene. The young physician who has never passed through the prolific parasitic period, cannot fully appreciate the startling stories related by mothers and doctors of former date. When he hears about worms balling up in the stomach, crawling out of the mouths and noses of children and getting into the windpipe and strangling the child to death, he listens as to fairy tales and is prone to believe them only as conjectures of fanciful minds of the aged.

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

Such exciting incidents as these are mere reminders of past history never to be repeated in this progressive period of our existence, as environments favorable for worm development ceased when practical hygiene prompted mothers to care more for their children, bathing them often and not allowing them to play in dirt or creep about the dusty yard, changing clothing often, etc. Filthy habits of children were responsible for the frequency of worms. Screen doors and modern privies have done much toward checking worm propagation. Flies are frequent carriers of germs and many primitive farm houses had neither screens nor privies and children were allowed to evacuate their bowels just any old place about the yard, and flies were permitted to enter the houses, depositing the eggs of worms from their dirty feet upon dishes, fruits, vegetables, bread, and in fact, all food became the dumping ground for infected flies. These same filthy flies would swarm about sleeping children unprotected by netting, feasting in their mouths, noses and upon their hands, which were usually covered with sticky sweets or other materials equally tempting to the fly. I believe all this responsible for the prevalence of worms in former days when we call to mind the prolific nature of these parasites. Reformation in habits of living has revolutionized the entire worm cycle and deprived the wise woman of much satisfaction in diagnosing all cases of indigestion as that of worms. The doctor who diagnosticates many cases of worms to-day as of former years, will be many times chagrined and will soon be found giving medicine to cut them up, rendering them invisible to the eye. My dear young doctor: I admonish you never to indulge in such idle talk. Doctors who claim that calomel and santonin will dissolve worms are absolutely mistaken and only make such absurd statements to cover up a mistaken diagnosis. If a doctor positively diagnosticates worms and straightway administers an anthelmintic, would not an anxious mother look for worms to pass as a result and failing to find them, would she not tantalizingly inform Mr. Doctor that he was much mistaken? In such a predicament as this, it is quite natural for a resourceful medical man to try to find such a knot hole through which to wriggle that he might maintain his professional standing and promptly reply: Madam I forgot to inform you that the medicine dissolved the worms, allowing them to pass with the feces unobserved. Such is the manner of some in coping with difficult problems found in the realm of medicine, and such erroneous statements by men of experience, perpetuates falsehoods throughout many years of a young physician's practice, until he has by sore experience, learned different. So let us be true to our patrons, to the public and to the profession, especially let us start the young man in medicine right for the road is full of adversities and disappointments at best.

Where is the once familiar *pediculus capitis* or head louse? Has it forever abandoned the once frequent fields of operation? It is al-

most as extinct as the parasite mentioned in the preceding chapter and its scarcity due much to the same cause: Change in habits, etc.

In reflecting over my boyhood life, I am inspired to write the following lines in memory of an epoch that is becoming as remote as the days when the little trundle bed was the child's paradise.

A child once more I long to be,
With bushy head on mother's knee,
While fingers softly parted the hair
To see if "boogers" were hiding there.

The real old lousy days of long ago have vanished before the sunlight of education and refinement and are remembered only by those who were reared in the country and received their literary training in the log school houses where barefoot boys with long hair, were packed in bunches on old fashioned benches, and where all indulged freely in the social custom of spending several nights each week with friends and vice versa, affording ample opportunities for swapping lice with all the boys in school, thereby strengthening the breed. Long hair and indiscriminate trundle-bed fellows, were responsible for the prevailing pests at that time. Many children reared during the present short-haired period have never seen a louse, but their fathers and mothers cannot say so much. There is a cause for this perceptible change and what is it? Education, civilization, and sanitation have done all in bringing about this exalted reformation, and a lousy individual to-day no longer has social standing in a community.

There are other parasitic affections that were once very popular, such as the old fashioned itch (scabies) and ringworm or *tinea circinata*. Their prevalence was due to the same cause as *pediculus capitis*, frequent changing of bedfellows; and as the two latter are contagious it is easy to surmise a spread of the contagion among the various members of a family or even a neighborhood. The less frequency of these ailments is from the same sanitary procedures as those practiced in former conditions; therefore, I shall not dwell longer upon them as you are familiar with their pathologic history and treatment.

While dealing with scalp affections I shall include in this chapter, baldness, a very embarrassing condition to befall proud man. A condition that quacks have found favorable for fleecing the public, with guaranteed preventives and cures. Thousands of dollars are being spent annually for advertised hair tonics and hair restorers and not one of them ever grew a hair on a bald head that would not have grown without it. Not one of them ever prevented a hair from dropping out and never will. Are we as physicians doing our whole duty when we stand idly by and see a credulous public swindled in this manner? I realize that it is hard for us to effectually assert our opinions in the face of newspaper testimonials from preachers, lawyers, merchants, bankers and congressmen, who positively declare that it has done so much for them when we know from a professional standpoint, that

they are either mistaken or have willfully lied. Such statements are made for a pittance, for a sample bottle or for a few days treatment free. Should we not as public benefactors, establish for once and all time, a rational fact concerning the cause of baldness? We know as medical men, it is not due to any of the causes laid down by the authors of patent medicine pamphlets that are scattered broadcast over the land, and I believe we should give to the public a reasonable cause for this increasing malady, one that every layman can comprehend and thereby save him money in the end.

Baldness is due to three common factors: First, hereditary tendencies, which are permanent and incurable: Second, constitutional disturbances, such as syphilis and continued fevers. Both are amenable to treatment and can be permanently cured: Third, and the chief of all, is a local cause due to hat pressure. Eighty per cent of all baldness is due to this one agent. The question may arise, if hat pressure be a cause: Why do not all people who wear hats become bald? I shall endeavor to explain this phenomenon in the sustaining evidence that hat pressure is a mechanical cause for baldness.

All nations that use no head cover whatever, are free from baldness. The Indian, the Hotentott of South Africa and the heathen of any country are exempt from it because of their bare-head life. Women wear loose head gear and are never troubled with baldness. If it was due to scalp eczema, dirt and dandruff, as quack pamphlets would have us believe, women would be more prone to it than men, as abundance of hair favors dandruff accumulation. Why does baldness always occur on top of the head? The temporal artery feeds the scalp and as its branches gradually grow smaller, finally ending in capillaries upon the crown, it is easy to suppose that if pressure be made upon its trunk or larger branches, the distal ends of the vessel would be the first to suffer. The most positive proof of hat pressure causing baldness, rests with the fact that it never occurs below the hat line except in the aged, which is a natural consequence due to general weakness of the heart and circulation causing the hair follicles to die for want of nutrition. Why do we find more baldness among professional and business men than we do among farmers and laborers? All men do not get bald, because some have an abundance of hair which is a protection to itself by forming a cushion between the hat and head preventing compression of the blood vessels that pass beneath the hat. Thick, coarse hair allows the arteries to carry more blood up between the hat and head than does thin hair of finer texture. Professional and business men get bald from wearing fashionable hats such as the stiff-crowned plug or derby, which fits like an iron band about the head obstructing a free flow of blood to the uppermost part of the scalp. Farmers and laborers wear their hair long and go about with any kind of an old hat or cap on their head which fits loosely, allowing a free and easy flow of blood to the crown of the head thereby supply-

ing the hair follicles with pure, fresh blood at all times. When we realize that the bony skull is so near the surface it is plain to be seen that blood vessels located in the shallow structure between the bony wall and the scalp, could be easily obstructed by external pressure. This being true, I sincerely believe the medical profession should adapt this seemingly rational theory for all mechanical baldness and settle a common controversy among the laity and the profession as well.

Madstone.—It is a condescension on the part of the medical profession to discuss that hyperbolic monstrosity called "madstone." Away back in the dusky age somewhere, some energetic philanthropist sought to cure or relieve unfortunate victims of hydrophobia, and as the healing art at that time was shrouded in mystery and much superstition, it was natural to suppose that a cure for this horrible affliction lay hidden in some secret vault of nature and when a concretion was accidentally found in the deers stomach, being of rare occurrence, it was thought to possess some powerful virtue for the ills of man, and after a study of its texture and consistency, being of a porous nature, it was found when heated, to adhere to wounds or moist surfaces and therefore, the idea was at once conceived that if applied to poisonous and infected wounds it would immediately extract the poison. If the stone failed to adhere to a wound from a dog bite, that was absolute proof that the dog was not rabid and there need be no fear of the victim ever having hydrophobia. Such was and is still the belief of the general public concerning this stone of superstition blessed with healing power by the gods of magic.

Why do such traits of ignorance linger so long in the midst of an intelligent race whose opportunities for learning far surpass any other nation on the globe? Because the medical profession and all promoters of science are too reticent to lead the poor mentally-blind out of darkness into the light of wisdom. This credulous dogma maintains its popular standing from the following recognized source which has never been questioned nor corrected by the medical profession; it is this. There is only about one rabid dog in five hundred thought to be suffering from rabies and about one person in fifteen bitten by a rabid dog that really contracts the disease. Some of the old authors give a lower average even than this, one in twenty-five. So you see the real malady in the human is extremely rare, perhaps about one person in two thousand bitten by dogs become victims of hydrophobia. There is scarcely a person who has reached adult life that has not some time in life been bitten by a dog, and many can produce scars as proof of the incident and yet but few ever have the disease compared with the great multitude that is bitten annually.

In every home is an average of five human beings. With every household is a dog, and to every dog, five people are exposed to its bites, playfully or otherwise, so it is easy to see how so many madstones in the country can flourish with business and maintain their

prominence, as only one in hundreds that apply for treatment have really been exposed to the poison and when this unfortunate one does take such treatment, goes on and dies the same horrible death all others die who develop true hydrophobia. The public hears too little about the failures of madstone therapy, as newspapers do not comment on such facts as readily as they do on the supposed cures with all of their mystic hoodooism.

It is criminal negligence on the part of the medical profession to allow this dangerous fallacy to hold sway in the minds of the public, causing a victim of real hydrophobic inoculation to ignore the only curative treatment found in Pasteur's Institute where specific treatment is administered in its incubating period. Rabbitfoot hoodooism and mental therapy are not so dangerous in acute and self-limited ailments, where death is not inevitable on delay, but for such a grave malady as hydrophobia we should ever warn the public against such rank empiricism as is being imposed upon it through the ignorant advocates of madstone cure for hydrophobia.

In order to give brevity to my essay, I have in this chapter grouped some of the items constituting my subject. I shall next speak of the "livergrown" baby and trust you older physicians will not ring the curtain down on me till I give the young men of the profession a hint of these fallacies upheld in the rural regions of this country. Many a puny little babe has been taken by its heels by some wrinkled-faced old woman and jerked about, head downward, like cracking the head off a snake by catching it by the tail whip fashion, to break its liver loose from some imaginary adhesion, they know not where. This same wizard will blow her foul and offensive breath into a baby's mouth, contaminating a breath that is as sweet as the wind-wafted perfume of a new blown rose, to cure the thrush, and put the nervous little thing in a sack and swing it over her head three times in succession to throw off a spasm, as she claimed. She will resort to all kinds of nauseating teas to cure "bold hives," which if allowed to break out is almost certain death. Inward fever is a common term used by the laity to express an undetermined fever; a fever lacking the usual manifestations; a fever without an elevation of external temperature; a fever that is supposed to be fraught with much significance if not danger. There is no such fever in the sense as herein used. There can be no inward fever without an outward manifestation. We may have a circumscribed inflammation of some internal organ and thus have a slight elevation of temperature in the inflamed area but this fact is not generally known by the public.

Drawing boils and abscesses to a head and scattering same, are unscientific phrases used by many physicians and should not be tolerated by the profession in general. Drinking ice water in warm weather is supposed by many to be injurious to the stomach and a menace to health. If drinking ice water in summer is harmful, it is also harm-

ful in winter because the stomach and body temperature remains the same all the year round. The stomach is no hotter in August than it is in January. The surrounding atmosphere changes but it does not alter the animal heat in the least. The surface of the body which comes in contact with the atmosphere changes but the internal organs retain their normal temperature notwithstanding. Some people are so eccentric as not to drink water at all believing it unhealthy for them. This is a serious mistake. Nature's elements are not detrimental to human welfare but on the other hand, absolutely essential, more especially water and air, nature's two chief constituents of life. We will drink ice water in winter with impunity but we feel we dare not do the same thing in summer. When boys, we have eaten snowballs and icicles in winter and thought nothing of it, but were taught to abstain from eating ice in summer. This is a long-taught mistaken idea and to be convinced of these facts is but to try it. City physicians may never observe such display of ignorance but we country doctors see many relics of such superstition and barbarism.

The next and last absurdity of which I shall speak, is that of "taking cold." This mooted question is worthy of much scientific investigation. Food, water and air are the great tri-nominal upon which life itself depends and air is the chief of all. We can live ten days or longer without food, eight days without water, and only three minutes without air. We may eat too much and cause disease and death; we may drink too much water and cause illness; but whoever breathed too much pure air. People are afraid to sleep in the open for fear of taking cold. This is bosh. We live in a sea of atmosphere just as the fish lives in the ocean; we can take only a lungful of air and no more; as the fish receives its supply of oxygen from the abundance of water all about, so we receive oxygen from the great ocean of air surrounding us. We expand the lungs with whatever kind of air surrounds us, let it be pure or impure. We are not expected to inhale all the air that comes through open doors and windows in our sleeping chamber; we merely fill our lungs, allowing the superfluous to wait on to fill its mission elsewhere. If a subject contracts a sore throat while sleeping in an open room he attributes it to too much air. This is not true. It is due to germ-laden atmosphere and not to the quantity of air he has been permitted to breathe. Colds, as we term them, are due to germ invasion, and the atmosphere is but the medium of ingress for respiratory germs and these we may contract indoors as well as out. There is but little danger in sleeping in a draught, provided the sleeper has the body protected with plenty of cover. And why should there be danger? There is no logical reason why we should not have just as pure air, and why could we not breathe it just as cold and as much of it while sleeping as at any other time? The air we breathe while sleeping enters the lungs through the same route as when awake and certainly it is the same air we would breathe if awake

and remained in the same locality. You cannot warm air with our modern process of heating without abstracting moisture from it, therefore, our living rooms of to-day are but drying kilns where we bake our bodies for a period of four months in the year. This kiln drying process removes the moisture but does not kill the germs that may circulate in the air. Moisture favors germ development but when atmosphere is already laden with them the average 70 degree temperature found in our homes will not destroy them. If we were to confine the same air in a room for days subjected to extreme dry heat, all germs therein would eventually die for want of moisture. We find pure air in high altitudes because of the perpetual dryness and germs do not thrive in such environments. External wounds are said to heal more readily in high altitudes because of the absence of atmospheric germs. If our homes could be supplied with such quality of air as is found in mountainous regions, there would be less of the so termed "taking cold." Breathing dry, hot air, dries the nasal secretions, incrusting the mucous membrane, crippling nature's strongest fortification against germ intrusion. The nasal tract becomes as dry as a powder horn and in this functionless condition, what is to hinder the pneumococcus and other germs from strolling down this dry, dusty avenue to green pastures beyond? Active nasal secretions prevent the inhalation of germs and other foreign substances that might be floating in the atmosphere, by entangling them in a mass of mucus. After working in dust you have observed the dirt in the form of mud blown from the nose showing the timely arrest by this organ of foreign matter that would have entered the lungs had the nasal cavity been dry or void of mucus. The snotty-nose child is immune against many diseases incident to cold weather by this physiologic process and nature could not have constructed a wiser plan for filtering the air we breathe than the one already inaugurated.

This subject is too important to receive mere passing notice such as I have given, and I trust you will take up the question where I leave off and further it along to a final and I believe, truthful issue. We are not possessed with sufficient courage to defend that which our professional judgment has long ago taught us was rational fact, and as sentinels to public health, we should correct all errors pertaining to nature's laws governing health and well-being, teaching that fresh air is nature's chemical element necessary to sustain all living substances, both animal and vegetable.

In conclusion: Let us throw open doors and windows that we may breathe free and deep into our lungs, God's most plentiful and sweetest gift of all, an abundance of pure, fresh air.

ADDENDUM.

Inasmuch as I was deprived of hearing a discussion and an opportunity of making a closing address on the above question owing to lack of time, and as I am intensely interested in the latter part of the

subject, that of taking cold, I therefore, offer this short addendum supplementary to this part of the essay that I may give to my hearers a few illustrative facts in strong support of my theory.

To those who know me personally, I wish to place myself before them as a living specimen of an outdoor sleeper. For two years and over I have slept in the open and during all that time I have never had a cough or a so-called "cold," when for several years prior to my sleeping out, I would have frequent attacks of acute bronchitis and tracheitis. There is not a lady in my county stronger physically than Mrs. Lockwood who has accompanied me at all times in these nocturnal outings. We are subjects of much comment by those who are familiar with the circumstance, owing to our strong physique. During the civil war thousands of soldiers slept out for several years in all kinds of weather and with but little bedding and they were not victims of consumption or other ailments incident to exposure. Let us have more fresh air in our sleeping apartments and there will be less tuberculosis in our midst. Foul and polluted water purifies itself as it travels through the air on its ocean journey. The great Missouri river that flows beneath the shadow of the beautiful Capital City, a few miles above is but a sewer-drain for Kansas City but before reaching the City of Jefferson, has sufficiently purified itself as to be wholesome enough for drinking purposes. Now if water contaminated with millions of bacteria can thus become purified, will not living micro-organisms that inhabit the lungs and other parts of the air passages surrender their lives to the same germicidal influences of fresh air breathed into their midst in an unlimited quantity? Surely it has a similar effect on all germs no matter of what variety they may be. Confined air is stagnant air and, like stagnant water, it is laden with many germs, and until people become converted, or I may say, reverted to plans of living more in nature's environments instead of that of man, we will continue to die from tuberculosis and other diseases of the respiratory organs. If tent life will cure consumption, and we have good reasons to believe it does, even after the disease is fully established, then would not these victims who are thus cured, forever remain free from it if they had followed a similar life? In other words, if we were to live more in accord with the plans now adopted to cure the disease, we would forever escape it. But I realize it will take a united effort on the part of the medical profession to convince a doubting public and to put into practice the essential reformation that will, I believe, revolutionize the prevention and cure of tuberculosis. Therefore I trust the profession will not treat this subject disdainfully for I believe the time is near at hand when it will no longer appeal to our minds as a mere theory or a flimsy idea but will become permanently established in the minds of all that there is no such thing as catching cold.

MEDICAL REPORT OF MISSOURI STATE SANATORIUM
FOR INCIPIENT TUBERCULOSIS, FOR THE MONTHS
OF AUGUST TO NOVEMBER INCLUSIVE.

BY ORVILLE HARRY BROWN, M. D., PHYSICIAN-IN-CHIEF.

The following report upon the work of the Missouri State Sanatorium for Incipient Pulmonary Tuberculosis is respectfully submitted, by its Physician-in-chief to the President, Medical Director, and other members, of its Honorable Board of Managers. The Physician-in-chief desires at the outset to express his appreciation and thanks for the support, confidence, and encouragement, received from the Board, —especially helpful has been that of the worthy Medical Director of the Board. The report covers the period dating from the first of August when the Sanatorium was declared ready for the reception of patients, to the 27th. of November, 1907.

A large number of letters have been received from persons who are interested in the institution, and there have been numerous callers at the Sanatorium seeking information concerning it; all of these inquiries have been given conscientious attention, and it is believed that the general interest in the Sanatorium has been considerably advanced thereby. It has been held constantly in mind that wise and laudable advertising of the institution and its possibilities is of great importance.

Copies of the short article, which was published in the Medical Fortnightly of St. Louis, have been sent or will have been sent to about a hundred and fifty of the newspapers of the State, with an individual letter to each asking that extracts from the article be published. It is too early to know the results of this. A number of short paragraphs and letters have been sent to the various medical journals which have general circulation in the State. Circular letters have been sent to the examining physicians and also to the clerks of the county courts.

Realizing that the education of the patients on certain points concerned with the dissemination of tuberculosis is as much to be desired as the care of the patients, it has been the constant aim of the medical staff, to impart to the patients such facts as should be of value to them or to anyone who has tuberculosis. It has been aimed that the patients should have ever before them an example of how should be done such things,—as caring for the sputum, doing the room cleaning, sterilizing the clothes before sending them to the laundry, keeping the door knobs, telephone transmitters, etc., clean, and attending to other household duties.

All correspondence—letters received and copies of letters written,—are filed so that they can be referred to at any time. These are filed alphabetically in a letter size cabinet. A history, a record of

the complete examination, and the notes kept by the nurse, of each case, together with all correspondence relative to that case, are filed in a manila folder in a letter size cabinet. It is hoped that by keeping careful records and histories some important deductions may be made from the large number of records which will eventually accumulate.

In addition to doing for these patients what we now know is of benefit for them, and in addition to teaching them the facts of which we now know they should be aware, it must ever be the aim to utilize every opportunity to discover wiser therapeutic measures, and other facts that will make the patients with the arrested disease a power for good toward the relief and prevention of tuberculosis in their communities.

Patient No. 1, a young lady from St. Louis, on entering (August 17th) weighed 104 pounds, had some expectoration, a slight cough, some huskiness of the voice, and a mild fever on slight exertion; she felt tired most of the time and lacked her usual energy. She now weighs 117½ pounds. This is about her normal weight. Her cough and expectoration ceased entirely, shortly after her arrival here, and neither has returned. She feels, she says, incomparably better than before she came. She has had no fever during the last two months and recently she has been working as much as six or eight hours per day, and she has been gaining steadily. She is a high class stenographer and her services have been next to indispensable. As the physical findings were never bad in this case there has not been opportunity for marked improvement. But there has been perceptible decrease in the harsh roughened respiration which was present when she entered. At present there can be found on either side, near the nipple, an area about the size of a quarter where the respiration* is very slightly roughened.

Patient No. 2, from St. Louis was discharged. His record was much the same as No. 1's with the exception that at the time of his dismissal the exercise amounted only to one or two drives to town per day. He gained five or six pounds and his expectoration ceased during the three weeks that he was here, and he felt much improved, he said. His physical findings had not changed perceptibly. As the cause for the discharge of the man illustrates a point which is of some importance, a few words concerning it may not be out of place. He was asked to use a room which had been occupied by another patient who had tuberculosis. The room had previously been thoroughly disinfected. He said he would leave before he would go into that room, and no amount of argument could rid him of his insane idea that a room once used by a consumptive, could not be cleaned so that it would not be a possible source of infection. Before he knew anything about the disease he had no fear of intimate association with

*Only gross changes in physical findings will be noted in this report.

tubercular people. For, on his own confession, he had only a year or so previously worked side by side with persons who had coughs and undoubtedly some of these were of tubercular origin. The little knowledge which he had acquired concerning tuberculosis was a dangerous thing. It may be much more conducive to a preventing of the spread of tuberculosis if people have an extreme terror of the disease, but it is certainly much more desirable if neither extreme is reached. It is one of the duties of this institution to teach the people of Missouri that a consumptive is not dangerous to the community if he is properly instructed as to how to care for his discharges.

Patient No. 3, a man 43 years of age, from St. Louis. His complications prevented him from doing well. In addition to incipient pulmonary tuberculosis, he was also suffering from bronchial asthma, probably cardiac in origin, from a valvular lesion of the left heart, and from arteriosclerosis. He was taken back to St. Louis where he has since died.

Patient No. 4, a woman 26 years of age, from Centralia. She entered September 9th. When first seen she was clearing her throat constantly, coughing considerably, and expectorating some; she had a fever of 102 and often 103 and her appetite was poor. She weighed 87 pounds. She now weighs 120 pounds, has no expectoration and only a very slight cough; she looks and feels very much improved. She has definite bed-room work to do each day and is holding her own all the time. Her physical findings now consist of slight crepitation in each apex, whereas when she entered she had numerous rales and the usual coexisting signs in a large area of each apex.

Patient No. 5, a woman 28 years of age, from St. Louis. She entered September 10th. She weighed 124 pounds on entering and had quite a bad morning cough, was expectorating considerably, and had some fever on exertion. She has done fairly well. Her cough ceased shortly after her arrival. She still expectorates some. She has very little fever at times. She had soon after her admission a mild attack of pleurisy which endured about two weeks. She has gained nine pounds. The physical findings of this case have improved.

Patient No. 6, is a woman, 24 years of age, from Mount Vernon. She entered September 15th. She has some complications which have made her recovery somewhat slow. The fact that her home is in this vicinity makes it impossible to keep her from wanting and having too many members of her family to visit her. She has spent recently several days without fever whereas her fever frequently reached 101 and 102 and even 103 when she first came. Her cough and expectoration and her diarrhea and certain other minor troubles are much improved. She has gained from 96 to 106 lbs. in weight.

Patient No. 7, is a young lady from Houston, Texas County, Mo. She was admitted September 16th. On entering she weighed 106½

pounds. She now weighs 125½ pounds. She had a great deal of throat irritation, which caused her to be coughing or clearing her throat incessantly; she expectorated considerably. This is practically all gone. She also had some fever on slight exertion. She is now able to be about most of the day and is gaining constantly and feels much improved. The physical findings show decided improvement. Under the left scapula she had, on admission, a large area of moist rales. These are nearly all gone and the respiration is much nearer normal in character.

Patient No. 8, is a young woman from Springfield. She was admitted September 19th. She has no fever except when she does too much work, and she has no cough or expectoration. She has gained nineteen pounds in weight and can do much more work without showing bad results than she could when she came. Her physical findings show very marked improvement. She feels stronger. She has assumed the task of preparing and giving raw eggs to all the patients who are required to take them. Her work is much appreciated as she has the knack of getting some of the patients to take the eggs, even though they dislike them very much.

Patient No. 9, is a young lady from St. Louis. She entered September 24th. She has had a mild fever most of the time. This, however, has not been in evidence much of late. Otherwise she feels good. She has had no cough or expectoration. She has gained in weight from 94 lbs. to 103¼.

Patient No. 10, is a young man from Ash Grove. He came on October 1st. He had considerable expectoration and some fever on entering. He weighed 137¾ pounds, and was somewhat debilitated and lacked his usual energy. He now has no fever, very little, if any, expectoration, is feeling fine and weighs 157 pounds and goes about to a limited extent. His right apex was the seat, when first seen, of numerous fine moist rales. These are replaced by respiratory murmurs and cog-wheel respiration. He is doing some light work, such as making trips to town on errands.

Patient No. 11, is a young man from St. Louis. He was admitted October 1st. He is still coughing and expectorating some, but not nearly so much as when he entered. He has had fever most of the time since entering, and he had a mild attack of pleurisy a few weeks back, with a slight exacerbation of his temperature. In spite of the mild backsets he has gained in weight from 130¼ to 142½. For the last week he has had no fever.

Patient No. 12, is from Mount Vernon. He is a man 41 years old. He was examined early in August and did well at his home while attempting to follow the advice given him. He has been a patient here since October 12th. His expectoration and cough have decreased. He has gained 14 lbs. in weight and his physical findings are much

better. Of late he has been kept in bed on account of the appearance of blood in his sputum. This is nearly all gone.

Patient No. 13, is a 15 year old girl from Chillicothe. She entered October 19th. On account of an abscess which it was necessary to evacuate, she has not been able to improve much. The abscess is giving evidence of healing, and it is hoped that she will soon begin to gain.

Patient No. 14, was a young man from Womack. He remained only two weeks. His reason for leaving was that he was homesick. While here he was suddenly stricken with what was diagnosed as pneumonia. The attack was aborted, however, and no bad results of it were observed. This patient was of such a disposition that he felt keenly the being away from his home and family and it was believed that by allowing him to go home after the object lesson which he had been given here, his recovery would be more rapid than it could be here. This supposition was justified as a report from him says that he has gained seven pounds in weight and that his other conditions are considerably improved.

Patient No. 15, is a young woman from West Plains. She was admitted November 6th. She has made decided improvement. Her cough and expectoration have decreased very markedly. She had a fever every afternoon for a while after she entered, but now she has fever only occasionally. She has gained seven pounds in weight and looks very much improved.

Patient No. 16, is a young man from St. Louis. He entered November 10th. His general condition on entering was good. He has gained five pounds, and we are now having him do some work. This will be gradually increased.

Summary.—An analysis of the above report shows the following points: Sixteen patients have been admitted,—one was discharged for insubordination, the second was discharged as a case unlikely to be benefited on account of his complications, and a third was a victim of homesickness to such an extent that he could not make himself remain.

Of the thirteen cases here at present twelve of them have made very definite improvement. The other has not gotten a start yet, but time will most likely bring about the desired results.

The twelve have made distinct progress in every particular. The cough, expectoration, night sweats and fever, have invariably decreased in each patient shortly after his arrival. The appetite generally improves and often during even the first week a gain of from one to five pounds is made. The twelve patients have made an aggregate gain of 171 pounds,—an average of a trifle over 14 pounds for each. The largest gain has been that of 33 pounds. This was made in something over two months. The smallest gain has been that of five pounds. This was made in two weeks. The bacilli having been

found in the sputum of eleven of the sixteen patients. No's 1, 2, 4, 9 and 13 were negative.

The patients number, the gain each has made, the time that each has been here and the exercise that each is allowed to take is shown in the following table.

Case Number	Weeks here	Gain	Cough	Expectoration	Exercise at present
1	14	14	None	None	Working 6 or 8 hours every other day.
2	..	..	.....	.....	.....
3	..	..	.....	.....	.....
4	12	33	Dry	None	Makes beds daily and sews some.
5	11	9	None	Little	None
6	10	10	Some	Some	None.
7	10	19	None	None	Goes to meals and walks about some.
8	9	19	None	None	Goes to meals and walks about some.
9	9	9	None	Little	None.
10	8	20	None	None	Drives to town.
11	8	12	Some	Some	None.
12	6	14	Slight	Some	None.
13	5	..	Some	Some	None.
14	..	..	.....	.....	.....
15	3	7	Some	Some	None.
16	2	5	None	Little	Drives to town.

State Sanatorium, Mt. Vernon, Mo., Nov. 27, 1907.

St. Louis, Nov. 30, 1907.

To the Hon. Board of Managers: In submitting the above report it gives me great pleasure to say that I have personal knowledge of the facts above stated. If we can continue as we have begun, and there is no reason why we should not, our institution will demonstrate that it is the best investment made by our State in the last ten years. With this I beg to thank you for the intelligent support you have given the Medical Department.

Respectfully,

WILLIAM PORTER, Medical Director.

Journal Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies.
Published Monthly under the supervision of the Publishing Committee.
ADDRESS ALL COMMUNICATIONS TO 603 METROPOLITAN BUILDING, ST. LOUIS.

Volume IV.

FEBRUARY, 1908.

Number 8

E. J. GOODWIN, M. D., EDITOR.

PUBLICATION COMMITTEE:

WALTER B. DORSETT, Chairman.

M. B. CLOPTON.

M. C. SHELTON.

EDITORIAL.

COUNTY MEDICAL LIBRARIES.

A feature of county medical society organization which can be made a source of great benefit to the members is the establishment of county medical libraries. We have three good medical libraries in our state, one in St. Louis, one in Kansas City and one in Springfield (Greene County), the latter having recently been established; it now contains a considerable number of books and periodicals and the society has just appropriated \$100 for the purchase of others.

The great value of a medical library is not fully appreciated until it has become established and the members get in the habit of looking up references, and comparing the various methods advocated by different writers in the treatment of diseases and the performance of surgical operations. Few doctors are in position to buy all the books published on any one subject, or even all the important books devoted to a special branch of medicine; yet all practitioners have occasion to consult various works on numerous subjects, if only the books are accessible. It happens not infrequently that physicians search their own private libraries in vain for helpful opinions on some particular subject, whilst studying how to cope with conditions that arise in the course of some baffling or erratic disease, and consultation with their confreres does not throw light on the condition; and so they struggle with the problem like one groping in the dark. Now if the county possessed a medical library the chances are that the very information which was so much needed and desired could be found in some of the books or journals on file there.

Every physician who has a proper realization of the responsibilities that rest upon him in his work of caring for the sick, endeavors to keep himself informed upon all topics that will tend to make him

more proficient. Especially is this true today when new discoveries and improved methods in the diagnosis and treatment of disease are being chronicled in all parts of the world. At no time in the history of medicine has there been such an eager search into the cause of disease and for the discovery of remedies to cure and prevent it. Men of great intellect desert the practice of medicine in order to devote all their time to the ascertainment of the origin and provide the cure of the numerous diseases which afflict man and animals. How shall the busy practitioner have knowledge of the work done by these investigators and learn to apply this knowledge? He cannot purchase all the books that are written nor can he buy all the medical journals that are published; but if the county maintained a medical library he would almost certainly find there just what he sought; for the library should contain all the important new books and monographs and prominent medical journals.

In counties where the membership is somewhat scattered the circulating library could be established. This has proved successful in other places and we see no reason why it could not be made a success here. It could be established by a few members, say ten or fifteen or as many as wished to participate, each contributing \$5.00 a year, the total amount to be used in the purchase of important new books and monographs and subscriptions to prominent medical journals. All those contributing to the fund would have the privilege of consulting the books and journals, under whatever restrictions and conditions they might decide upon as being proper and right. In towns where there is a public library arrangements could be made with the library board whereby the physicians of the county might have the use of certain space as a repository for medical books and periodicals only. In counties where no public library exists space could be secured in the county court house. In all instances arrangements could be perfected for the circulation of the books under proper regulations, and thus all members in the county contributing to the fund would have the use of the library.

We would be glad to have the members give their views on this subject and state whether in their opinion the plan is practical in the various counties. To us it seems to hold much encouragement for increasing the general interest in county society work.

DR. ALLEE A CANDIDATE FOR THE SENATE.

We learn that our esteemed president, Dr. W. S. Allee, has consented to become a candidate for state senator from the 27th district, comprising the counties of Cole, Laclede, Maries, Osage, Miller and Pulaski. This district has been represented since 1904, by Dr. Frank DeVilbiss, whose good work during the last session of the General Assembly is still fresh in the minds of the profession. Dr. DeVil-

biss has found it impossible to serve another term and it is with much pleasure that we announce the candidacy of Dr. Allee.

We believe Dr. Allee will receive the unqualified support of every physician in the 27th district, and we know that his election will mean the advancement of the best interests of the public and the profession. We should have as many representatives in both branches of the General Assembly as can be elected and they should be men in whom the profession and the public can repose the fullest confidence.

The election of medical men to the state legislature carries a meaning too far removed from the opinions of the day to be judged at once in its proper light. As things now are—and we experience no feeling of criticism because the medical side has not yet permeated the non-medical members of our legislature—a decided want is unfilled until medical men are elected to the General Assembly.

The making clear to the non-medical legislators of the need of reforms pertaining to state medical questions, so that laws affecting them may be passed, must impose on medical men who have the best interests of the state at heart. The larger the number of medical men elected, provided such men are of intelligence enough to recognize the exigency of our wants, the easier will be their performance.

In Dr. Allee, whose past endeavors have always been in the direction of an uplift of medical matters, and a furtherance of a proper appreciation of the medical profession by the public at large, we have a candidate whose words will carry weight and influence as a member of the legislature.

By request we publish the following letter. We print it *verbatim*:

St. Louis, Mo., Jan. 10, 1908.

E. J. Goodwin, M. D., Editor,
534 N. Vandeventer Ave., City.

My Dear Sir:—I take the liberty of addressing you for the purpose of calling your attention to an article appearing in the columns of the Missouri State Medical Journal bearing date of December 1907 wherein my name and address is mentioned together with some sixteen other physicians and sanitarians following a general writing bearing the caption *Licenses Revoked*. In this article I am charged with being guilty of flagrant violation of the Medical practice Act (Probably referring to the Missouri Statutes and of unethical conduct." Further in the paragraph just preceding the list of published names in which is included my own, it is stated that I have been denied the use of the United States mail, which assertion is absolutely false and unwarranted. It is also stated in this article that I am one of the several who have caused advertisements to appear in the St. Louis daily

papers conveying information and giving notice where abortifacients and criminal operations could be obtained, which is grossly untrue and false this editorial" as it is classed in your Journal has the general purport that I have been guilty of unethical and irregular practice, and is an attack which should be resented by any reputable practitioner, and for your own information, I desire to state that each and every accusation above referred to is unfounded and deplorably false. I was greatly surprised and sorely grieved to learn and know that I am considered by yourself to be so disreputable as the tenor of the article conveys and I must insist that a fair and proper correction of the same be made and published in the succeeding issue of your Journal, vindicating me and further enlightening your many readers. Which I am confident you will be glad to do after a complete and thorough investigation of all has been made. Hoping you will see fit to comply with my request I beg to subscribe myself

Yours very truly,

W. T. MAHON, 2304 Park Ave.. City.

Below we print copy of the letter sent to St. Louis newspapers by the postmaster in St. Louis which is self-explanatory:

November 22, 1907.

For your information I beg leave to inform you that the Postmaster General has declared unavailable under the provisions of section 3893 of the Revised Statutes of the United States the advertisements of the hereinafter named parties, as containing information and giving notice where abortifacients and the performance of criminal operations can be obtained, in violation of the provisions of said section.

In conformity with said instructions I shall refuse to admit to the mails any papers carrying the advertisements as follows:

Dr. DeMyers and DeMyers-Dennis Medicine Company.
 DeMyers Sanitarium, 2112 Olive Street.
 Dennis Sanitarium, 2639 Washington Street,
 North Side Sanitarium, 809 Belmont Street.
 South Side Sanitarium, St. Louis, Mo.
 and Office, 51½ Main Street, East St. Louis, Ill.
 Dr. Mahon and Dr. W. T. Mahon, 2304 Park Avenue.
 Mrs. Pauline Kahn, 3117 Nebraska Avenue.
 Mrs. Dr. Smith Bruegel, 3507 Franklin Avenue.
 The South Side Sanitarium, 2344 South 12th Street,
 Mrs. Whittle, 2910 Olive Street,
 Dr. Demmler and Thomas Remedy Company, 3125
 Olive Street,
 Mrs. Mary Arthur, 3129 Morgan Street.
 Mrs. A. Schroeder, 2907 Franklin Street.
 Ward Remedy Company, 2902 Washington Avenue,

Mrs. Hoelker, 2232 Clark Street,
 Mmes. Merrifield & Unger, 6407 Easton Avenue.
 Dr. Fitzporter and Galen Medical Institute, 1516 Chest-
 nut Street.
 (Signed) FRANK WYMAN, Postmaster.

We print below copies of advertisements which have appeared in certain St. Louis newspapers. They tell their own story. The attention of the committee of public health and legislation of the St. Louis Medical Society, and the St. Louis board of health is directed to these advertisements for such action as may seem warranted.

OUR special treatments for female diseases and nervous men are guaranteed. Call or write Dr. Mahon, 2304 Park avenue, St. Louis.

WE treat special diseases of men and women; all treatments guaranteed; for information call or write Dr. Mahon, 2304 Park avenue, St. Louis.

RESULT OF THE EXAMINATION OF APPLICANTS TO PRACTICE MEDICINE, HELD NOVEMBER 19-21, 1907.

The following is a list of colleges represented at the examination of the State Board of Health, Nov. 19-20-21, 1907, in St. Louis, with the date of graduation, the number that passed and those that failed from each College:

Name of College.	Date.	Grade.	Passed.	Failed.
North Western Univ., Chicago.....	1901	77	1	.
North Western Univ., Chicago.....	1906	86	1	.
Washington Univ., St. Louis.....	1907	68	.	1
Washington Univ., St. Louis.....	1907	79	1	.
Washington Univ., St. Louis.....	1907	65	.	1
Washington Univ., St. Louis.....	1904	81	1	.
Harvard	1903	80	1	.
University of Va.....	1907	78	1	.
Tufts Med. Col.....	1906	75	1	.
Barnes Med. Col.....		62	.	1
Barnes Med. Col.....	1906	75	1	.
Barnes Med. Col.....	1907	58	.	1
Barnes Med. Col.....	1905	75	1	.
Barnes Med. Col.....	1907	75	1	.
Barnes Med. Col.....	1907	68	.	1
Barnes Med. Col.....	1904	46	.	1
Jefferson Med. Col.....	1883	75	1	.
University of Med. Kansas City.....	1907	75	1	.
St. Louis Col. of P. & S.....	1907	75	1	.
St. Louis Col. of P. & S.....	1906	61	.	1
St. Louis Col. of P. & S.....	1907	75	1	.
Ky. School of Medicine.....	1907	75	1	.
Ky. School of Medicine.....	1907	64	.	1
Am. Med. Col., St. Louis.....	1905	75	1	.
Am. Med. Col., St. Louis.....	1907	75	1	.
Am. Med. Col., St. Louis.....	1907	68	.	1

St. Louis Univ.....	1907	50	.	1
St. Louis Univ.....	1906	52	.	1
St. Louis Univ.....	1906	66	.	1
Bennet, Chicago	1895	70	.	1
Lincoln Med. College.....	1907	52	.	1
Howard Univ. Med. Dept. Washington..	1907	79	1	.
College of P. & S., Chicago.....	1902	67	.	1
Gtalia, Italy		50	.	1

ARTICLES APPROVED BY THE COUNCIL ON PHARMACY AND CHEMISTRY.

Lecithol (Armour & Co)

Guaiacol Carbonate Comp. (H. K. Mulford Co.)

Neuro-Lecithin (Abbott Alkaloidal Co.)

Dr. T. C. Allen, of Bernie, has been appointed Councilor of the Twenty-third District, to fill the vacancy caused by the death of Dr. D. R. Corbin.

Dr. Frank Harrison, of Farmington, has been appointed Councilor of the Twenty-fifth District, to fill the vacancy caused by the resignation of Dr. F. L. Kieth.

In future *The American Journal of Urology* will be edited by Dr. William J. Robinson, Editor of the Critic and Guide. The journal will be enlarged in scope so as to include venereal and skin diseases and an abstract department which will review the genito-urinary and dermatologic literature in every civilized language. The publication and editorial offices have been removed to 12 Mt. Morris Park West, New York City.

It is with much regret that we announce the removal of Dr. J. B. Taulbee from Maysville, to Joplin, Mo. Dr. Taulbee has been one of the most successful surgeons in the eastern part of the State, and his removal is a great loss to the profession and the people of Kentucky. (Kentucky Medical Journal).

Kentucky's loss is Missouri's gain. Dr. Taulbee has joined Jasper County Medical Society.

PROCEEDINGS OF THE MEETINGS OF THE COUNTY SECRETARIES, HELD IN ST. LOUIS DECEMBER 19TH AND IN KANSAS CITY DECEMBER 23RD, 1907.

At the St. Louis meeting the following members were present: W. S. Allee, President; Wm. P. Smith, Lincoln County; W. R. Patterson, Moniteau County; Woodson Moss, Boone County, Councilor 9th District; John D. Seba, Gasconade-Osage-Maries County; W. L. Allee, Miller County; A. C. Brown, Franklin County; Frank J. Tainter, St. Charles County; Martin Yates, Callaway County; Jno. R. Lionberger, Cooper County; Roy D. Moore, St. Louis County; W. H. Townsend, St. Louis County; Henry Jurgens, Knox County; Paul F. Cole, Lewis County, Councilor 6th District; T. D. Mangus, Randolph County; Davis Forster, St. Louis Medical Society; E. C. Grim, Adair County; Walter B. Dorsett, Councilor 8th District; E. J. Goodwin, Editor.

At the Kansas City meeting the following members were present: W. S. Allee, President, W. G. Jones, Benton County; R. M. James, Jasper County; A. H. Madry, Lawrence-Stone County; R. P. Yeagle, Cass County; H. C. Shuttee, Howell County; W. J. Rabenan, Webster County; A. H. Thornburgh, Howell County; R. F. Cook, Carroll County; F. H. Broyles, Harrison County; D. L. Mitchell, Barry County; W. D. Fulkerson, Grundy County; F. H. Matthews, Clay County; F. W. Burke, Linn County; Chas. W. Fassett, Buchanan County; T. A. Coffelt, Greene County; G. C. Coffey, Platte County; E. J. Goodwin St. Louis; A. W. McAlester, Jr., Jackson County; E. N. Chastain, Bates County; E. L. Stewart, Jackson County; Austin McMichael, Atchison County; F. M. Shafer, Platte County; W. T. Elam, Buchanan County; N. P. Wood, Jackson County; E. H. Miller, Clay County; Councilor 12th District; T. F. Lockwood, Bates County; A. R. Snyder, Jasper County; R. A. Evans, De Kalb County; B. E. Miles, Andrew County; G. D. Allee, Barton County; T. Mc-Lemore, Vernon County.

The following reports by secretaries and councilors are of great interest as indicating the present condition of affairs in the various counties and the probable outlook for the future.

Dr. E. Grim, of Adair County, said that Adair County Medical Society had made great gains since its organization in January, 1905, when we began with six members and met quarterly. Throughout the past year meetings were held monthly. The membership rose to twenty-one, twelve papers were read during the year and twenty-four clinics presented. The average attendance was six, not as great as it should have been. One reason for this, however, is that about one-third of our members live in smaller towns off of the railroad and must make long drives at night if they attend. There is no internal

strife in the society, but a certain amount of lagging interest. The number of physicians in the county is 29 of which 21 are members of our Society.

Dr. E. N. Chastain made the following report for Bates County: Our county society has 17 members, of this number 5 have never attended a meeting and 5 have attended only one meeting since organization. We rarely have an attendance of over 6. Our meetings are quarterly. Last quarterly meeting was held in Butler, on December 19th, at which time officers were elected.

Our members pay their dues promptly, but each expects the others to attend and keep the society going. We have tried various ways to get the members to attend—by changing meeting place, a symposium, quiz, but all have failed to get them.

We have another class who are present at every meeting unless on duty at the meeting when they suddenly get busy and can not attend; now if any one can give me the remedy for this trouble my time will be well spent. Rich Hill, with seven physicians, five of whom are, or have been members, have never had a single representative present at a meeting in two years. At our last meeting we determined to take up the post-graduate course as outlined by the American Medical Association and to meet monthly, and when two or more could get together to hold weekly meetings or study as a correspondence course and then all meet at our monthly meeting. We decided to ask some one from this city to visit our society and review the work we go over.

For Boone County Dr. Woodson Moss, Councilor of the 9th District, read the following report prepared by the secretary, Dr. Kampschmidt: The society in our county has done very little the last year. Had one meeting last December when a good program was rendered, and a business meeting last month. An effort was made nearly every month to secure a meeting but we failed to have a quorum. We have 26 members and there are 25 physicians in the county not members but are eligible to become members.

Dr. Moss said it was difficult to arouse any enthusiasm among the members in Boone County. He hoped however that more interest would be taken in the society in future and looked to the formation of this Association as a means of bringing this about.

The following report of Caldwell County was sent in by the Secretary, Dr. Tinsley Brown: The preliminary meeting for the organization of the society was held at Kingston, Mo., Aug. 4th, 1902, but the permanent organization was not completed until April 6th, 1903, when a constitution was adopted which was approved by the committee of the State Association. The society reported eleven members to the State Association for the year 1903, in 1905 21 members, in 1906 24 members, in 1907, 27 members. Since July 1st, we have admitted two members so we now have a total of 29 members. Our meetings are held quarterly, January, April, July, and October, in such places

as may be selected from time to time. The April, July and October meetings are generally well attended but the January meetings are as a rule a failure on account of bad weather. The meetings have been profitable and we have on an average of three papers on some medical subjects besides clinical reports.

A great deal of the work has devolved on the secretary to look after the making up of the program which we generally have printed and sent to all members and often to physicians outside of the society.

We have now in our society nearly all the physicians in the county that are available. We have elected three as honorary members and have not required them to pay dues. We can not expect much growth in our society but the object will now be to make our society of interest and profit to the membership. Heretofore we have elected officers at the July meeting but have changed the time to the January meeting.

Dr. A. C. Brown secretary of Clay County read the following report: On November 23, 1899, the first medical society of Franklin County for a great many years, was organized at St. Clair, Mo. It gradually received into its membership about one-half the physicians of the County. The aims for which it was put on foot were hindered by the indifference of many of its members, their lassitude in doing its work, or in attending its meeting, and again, some doctors who never became members, irregular in conduct toward members of the profession as well as failing to meet their responsibilities to the unfortunate sick, but to mislead those patrons who might expect a greater appreciation on their part, of their calling, threw stones by denouncing any medical society as a "doctor's trust." These were usually of a number of those who graduated under easy requirements, licensed under same conditions, knew little nor cared to learn any more, never subscribed for a medical paper or journal or possessed a work on medicine that did not antedate their graduation. They did not know, but that Nicholas Senn was practicing law or running for congress, or Billroth an inhabitant of the Malay Islands. Under such encouragement the Society went to sleep. It was reorganized at Pacific, April 3rd, 1905, and ever since this time has affiliated with the Missouri State Medical Association and has been represented at each annual meeting.

The society meets quarterly at Pacific. It has an average attendance of about one-fifth of the doctors of the county. It has on its roster over half of the physicians of the county, and of course, among this number are our best. There are a number who, knowing they cannot hold membership in the State and National Medical Associations without being members of the County Society, affiliate with the County society only by paying their dues and never pretend to attend one of its meetings.

The time of the Society at its meetings is almost wholly utilized

in the reading and discussion of original papers on medical subjects, reviewing papers and discussions before the State and National Associations, reporting and discussing interesting cases that each doctor meets in practice and the study of what the great thinkers of the profession of today at home and abroad, have to say relative to the subjects discussed. We too, not unfrequently, have prominent men in their special line of work meet with us and read papers. Our Society is, therefore, indirectly maintained solely in the interest of the sick, and against charlatanism and quackery.

Dr. Benj. Davis for Gentry County reported as follows: There are 32 active practitioners in Gentry County, 30 of whom are eligible for membership in the State and County societies. Twelve active members are recorded for the present year and two new members have already signed for 1908. This leaves a possible 18 eligible members who are not at present enrolled, although 8 of the above have in the past been members, but were dropped as a result of non-payment of dues.

Greene County has been doing excellent work and the physicians in that section are well alive to the benefits of organized efforts. Dr. J. L. Ormsbee the secretary, sent a report and Dr. T. A. Coffelt Councilor for the 28th District, gave an account of his work in organizing the district. Dr. Ormsbee's report is as follows: The conditions in regard to the illegal practice of medicine in this County are very poor; we reported 3 or 4 illegal practitioners to the prosecuting attorney, who promised to look after them; one he found out, or rather our Society did, was registered under the old law in another County but the Attorney would not make him register here; the others he wrote to and his report to us was that they would stop practicing until they could comply with the law.

I expect similar conditions prevail in the majority of the Counties in this State, and in my opinion the best way to overcome it is as they do in some of the larger cities, employ an attorney to look after these illegal practitioners, or to push the prosecuting attorney along to do his duty.

The year 1907 has been very prosperous for our Society, in fact the most prosperous one we ever had in point of members and work done. We have held twenty meetings, with an average attendance of 22 members at each meeting; we have increased in membership by 19 members; among our meetings have been two banquets, one open session meeting, one business meeting, when we adopted a new fee-bill; several meetings where business matters were discussed; and fifteen scientific papers have been presented, read and discussed.

At the present time we have fifty-five members. At the beginning of the year the Secretary was instructed to send a condensed report of each meeting to the State Journal and to see that each member received the Journal regularly; this has been a great help in keeping up in-

terest in the society. The officers of the Society and Committees have been very active in the work for the good of the order and so we are in a prosperous condition and getting ready for the meeting of the State Association here next year.

Dr. T. A. Coffelt, Councilor of the 28th District, read the following report: The 28th district is composed of the following eight counties, viz: Christian, Barry, Greene, Lawrence, Polk, Stone, Taney and Webster. All these counties are organized and have working societies, except Taney, which is a very hilly and broken part of the country, and until the last year was not penetrated by any railroad. I feel pretty certain, however that I will be able to organize a Taney County Medical Society in the early part of 1908. Stone and Lawrence counties are hyphenated and form a good strong society, I believe none of these county societies are two years old. Most of them were organized near the beginning of 1907. Some of these counties had medical societies in them before these dates, but they were not very active and progressive as a rule. The Springfield Medical Society had been in operation for over thirty years and had a very solid foundation for the new county organization. There has been aroused a very much greater interest in this section of the state composed of the 28th district, since reorganization under the correlated and uniform plan adopted.

This district then, has six societies working under the new order, with the prospect of the seventh to be added in the near future.

Most of the societies are doing very fair work on the scientific and clinical lines. There is some effort being made by some of the societies to clear their territory of illegitimate practitioners of medicine.

Some little interest toward better medical laws and legislation to that end is being manifested.

It seems to me the greatest need at present is a uniform plan that will elicit the interest of every member of these societies and give every doctor something to do, thereby calling out the latent possibilities of the membership, unifying and strengthening the whole.

I shall take the liberty to suggest to this body that I believe it will be a long step in the right direction to recommend to the legislative body of the State Association to formulate some uniform plan of operation that can be carried out in all the county societies. Let this work be so graded that it can be adjusted to the weaker and less experienced in society work, as well as to the stronger and more advanced. If the work of the societies was systematized, laid out, and assigned far enough in advance for those who take part to be prepared, it would add both interest and efficiency. There should be definite outlines even for the work of committees, especially the committee in the county society on legislation and prosecution of illegal practitioners of medicine.

Grundy County has not been active. Although meetings were held in seven months of the year no papers were read and only one case reported. The society has twenty-two members and should show greater activity in 1908.

Dr. F. H. Broyles reported as follows: Harrison County Medical Society meets regularly once every three months and the meetings, while not largely attended are usually very interesting. The small attendance is due to poor railroad facilities and many of the physicians living considerable distance from the county seat where the meetings are held. The interest in society work was good but for the reasons stated the attendance at meetings was not large. They have nineteen members.

Howard County has a very active and energetic secretary, Dr. C. W. Watts, and the Society is doing good work. There still remain a number of eligible physicians in the county who have not joined.

Dr. A. H. Thornburgh, secretary of Howell County reported as follows: Our Society has enrolled a majority of the physicians that are registered in the county, and late in the year 1906, we admitted four members from Oregon county, Drs. J. L. Eblen and J. C. Pyles of Alton, and Drs. J. C. Culp and T. D. Powell of Thayer. This was done because they had no organization of their own. We have 13 physicians in the county enrolled, and 4 out of the county, making 17. There are besides these, 6 who are eligible to membership.

Interest in scientific work has not been what we would like, but we have a promise of better work in the future. However, we have had several interesting and valuable papers which are proof of the interest in our work and advancement.

For Jasper County Dr. R. M. James, Secretary, reported: There is a total of one hundred and eight physicians in the county, fifty-six of whom are members of the medical society, forty in good standing with dues fully paid for current year leaving fifty-two non-members in the county who are supposed to be eligible for membership.

The Society meets Tuesday evening of each week with an average attendance of from twelve to fifteen members. It is the custom of the society to adjourn during the hot months of the year. We have had twenty-nine meetings this year and there have been about twenty scientific communications read, quite a number of interesting clinics and numerous cases reported.

The Society has prosecuted two illegal practitioners: the suits were brought in the Justice Courts and in each case we had a hung jury, the suits finally being dismissed. Cases in the future are to be filed in the Circuit Courts.

Dr. A. H. Madry reported for Lawrence-Stone County. He said a call to the physicians of Lawrence County by Dr. C. A. Harris and others, was responded to by twelve physicians, the larger part of whom met at Mt. Vernon, Jan. 2nd, 1906. It was first called the Law-

rence County Medical Society. The regular A. M. A. constitution and by-laws were adopted. The next meeting was held at Aurora, March 6th. C. A. Moore was elected delegate to State Medical Association, W. W. Rodman, of Peirce City, D. L. Mitchell, of Cassville, and D. M. Huffman, of Crane, were appointed a committee on Sanitation and Medical Legislation. On recommendation of the State organizer at the meeting of Dec. 4th, 1906, Stone County was included in the organization, and name changed to Lawrence-Stone County Medical Society.

Dr. W. S. Hutton, secretary of Scott County, reported as follows: For the most part there is harmony in the profession in Scott County. Since the organization of the Scott County Medical Society more than a year and a half ago, all the eligible members of the profession, save one or two have joined, and I believe are exerting their best efforts in the interest of the Society.

We have twenty-one members, two eligible, not members and five ineligible. The Society meets quarterly at various towns in the county.

The subject of fee bill has occupied the attention of the Society for the last two meetings: it will be acted upon finally at the next meeting, which is to be held at Fornfelt, the First Monday in January, 1908.

Dr. Forster, secretary of the St. Louis Medical Society, stated that the number of symposiums for the weekly meetings of that Society had been increased and that this seemed to create a greater interest in the scientific proceedings of the meetings. He also stated that the Society is being divided into sections and that the following sections have been organized: The Ophthalmic Section, The Civic Section, The Section on Internal Medicine, The Obstetrical Section, The Oto-Laryngological Section and the Surgical Section.

The Society has at present 660 active members. Another feature of the St. Louis Medical Society was the adoption of measures for the protection of its members against suits for malpractice. All the members of the Society have the benefit of this medico-legal defense up to the time of suit being called in court. The Civic Section of the Society is one which looks after the interests of the Society in the various wards of the city. Through the work of this Section the Society is kept in touch with all practitioners in all parts of the city.

Dr. Morfit also addressed the meeting and recommended certain measures among them the establishment of a medical defense fund by the State Medical Association for the benefit of all the members of the State Association.

St. Louis County is in a prosperous condition. Dr. Roy D. Moore, secretary, said the medical profession in St. Louis County is alive and appreciative of the benefits of organization. We have an active society of forty-four members, who meet the second Wednes-

day afternoon of each month, at Kirkwood. We held eleven meetings this year with an average attendance of fourteen members, occasionally having over twenty and never less than ten.

Two papers are read at each meeting and with pathological specimens and clinical case reports the meetings are interesting and educational.

Since organization we have suspended but three members for non-payment of dues. Six new members have been received this year. We carry but one class of members making our dues \$4.00 per year two of which are paid to the State Association for dues in that society. The Scientific program is prepared by a committee appointed by the president. This committee holds a meeting early in the year and selects a line of work to be carried out by the society.

Papers are assigned to various members, two to be read at each meeting.

If a member prefers to read a paper upon some other subject than the one assigned him it is his privilege to do this but he is expected to read a paper on some subject at the time assigned.

In this way we have managed to make the meetings interesting and profitable. We have a fee-bill which the members find practical and serviceable.

While the majority of members who attend meetings regularly reside within a reasonable distance from Kirkwood or can get there easily on street cars, the outlying district doctors are not so fortunate and seldom are able to attend a meeting.

This is a condition difficult to overcome and change of meeting place from time to time has been suggested but never carried out. In order to increase good fellowship and get better acquainted we have a banquet once a year, the expenses paid from funds of society.

It is unfortunate that the County Health Officer is not a member of the society. Well organized County Societies should certainly have some voice in the appointment or election to this important office.

We realize that there are eligible physicians in the county who are not as yet members, but they are fewer each year and the outlook is good to get all of them to apply for membership.

Dr. W. J. Rabenan of Webster County read the report of Dr. W. R. Beatie, secretary of that county. There are thirteen members in Webster County. They are making desperate efforts to rid the county of all illegal practitioners. They hoped to have all reputable physicians as members in a short time. Meetings are held every three months. These are well attended and full of interest.

COUNTY SOCIETY NOTES

BARRY COUNTY MEDICAL SOCIETY.

[The following appeal was sent out by the Secretary of the Barry County Medical Society to the members of that society. It is an earnest call for assistance in maintaining interest in the work of the Society and should result in stimulating the members to take active part in the work. Keep up this kind of work and your society is sure to progress.—Ed.]

The next regular meeting of the Barry County Medical Society will be on the Second Tuesday in March, 1908, as you will see by referring to the constitution and by-laws. The meeting last December came at such a busy time with the doctors that there were only six in attendance. But from the encouragement already given we expect the largest and most interesting meeting in March in the history of the Society.

Now, Doctor, commence at once to get up a paper or report of a case for our next meeting, and let us know your subject so we can get out a program about ten days before our next meeting. To those who have not paid dues, \$3.00, for 1908, please send them at once. One dollar of this is dues to County Society and two dollars dues to State Society, and each member is entitled to the State Journal. If any members does not receive the Missouri State Journal, please promptly report same so the cause may be investigated. Each member in good standing in the County and State Societies is entitled to membership in the American Medical Association by remitting the dues, \$5, which entitles you to The Journal of American Medical Associations, one of the best, if not the very best, weekly journals published.

Your Secretary had the pleasure of being present at the meeting of the Secretaries of County Medical Societies and Councilors of Districts, at Kansas City, Mo., on Dec. 23, 1907. There was a good attendance and much interest manifested by each and every one present. Many of the officers of the State Medical Association, including the President and Secretary, were present. Among the many things discussed at this meeting were plans and means for promoting better interest in meetings of the County Medical Societies.

Don't fail to be present at our meeting in March.—D. L. MITCHELL, Secretary.

CARTER-SHANNON COUNTY MEDICAL SOCIETY.

The Carter-Shannon County Medical Society held its regular meeting at Fremont, January 14th.

After the routine work was ended, papers were read and dis-

cussed, the following of which will be mentioned in particular. Alcohol: a paper by Dr. T. W. Cotton. This was read and freely discussed, and several new points regarding the physiologic action and therapeutic value of the drug were brought out.

Paper: "What the Physician Owes to Himself," by Dr. Wm. Fulton. In this paper the doctor clearly shows that the physician owes a part of his time to himself for recreation and self improvement, and also some time to the enjoyment of his family and the social side of life, things that are often sadly neglected by the busy general practitioner.

Dr. Fulton was elected delegate to attend the next meeting of the State Medical Society to be held at Springfield, in May.

Withall, the meeting was an interesting one and well enjoyed by the members present.—J. A. CHILTON, M. D., Secretary.

CASS COUNTY MEDICAL SOCIETY.

The Cass County Medical Society held its regular meeting at Harrisonville, January 2, 1908.

The attendance was good and a very interesting program rendered.

Dr. T. W. Adair read an excellent paper on "Criminal Abortion," which was ably discussed by all present.

Dr. M. P. Overholser read a very scientific paper preliminary to a paper on "Opsonins."

Dr. G. M. Anderson gave a very interesting and practical paper on "Vaccine Therapy."

Dr E. Schoor's paper on "The American Mother," a very literary and interesting article, was thoroughly appreciated by all present.

Report of committee on Fee Bill was received, and the committee was instructed to have copies of the bill printed for distribution among members of the Society.

Adjourned to meet at Harrisonville, March 5, 1908.—R. P. YEAGLE, M. D., Secretary.

CHARITON COUNTY MEDICAL SOCIETY.

By order of the president the Chariton County Medical Society convened in called session on Thursday, January 9th. Those present were Drs. Wallace, Hawkins, McAdam, Epperly, Welch, Brummall, Austin, McEwen, Banning and Jennings.

The secretary's report for the year 1907 was read and approved and his fidelity was commended.

A resolution was offered by Dr. Brummall that the by-laws be so amended as to change time of meetings from the last Thursday in each month to the second Thursday. The proposition met with the general approval of the members and was laid over until the next regular meeting, January 30th, for final action.

The election of officers for the ensuing year resulted as follows: President, Dr. C. H. Temple; first vice-president, Dr. G. W. Hawkins; second vice-president, Dr. J. S. Wallace; secretary and treasurer, Dr. C. A. Jennings; state delegate, Dr. C. H. Temple; medical representative, Dr. J. S. Wallace; alternate representative, Dr. M. B. Austin; censors for 1908, Drs. McAdam, Banning and Tatum; reporter, Dr. C. A. Jennings.

A committee, composed of Drs. McEwen, Welch, Brummall and Jennings, was appointed by the president to prepare the year book for 1908 and report at our next regular meeting.

On motion of Dr. J. S. Wallace it was decided to have our regular meetings for the ensuing year in Salisbury and Brunswick alternately.

By request of Dr. McAdam the members gave their views on the diagnosis and treatment of dilatation of the heart. Dr. Epperly reported an interesting case of hypertrophy of the prostate with suppression of the urine.

Drs. Hawkins and Wallace were appointed essayists for the next meeting.

On motion the Society adjourned to meet in Salisbury, January 30th, 1908, at 7:30 p. m.—C. A. JENNINGS, M. D., Reporter.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF DECEMBER 27, 1907.

Dr. W. A. Camp read a paper entitled "The proper Diet in Some Forms of Eye Diseases." He said in part that doctors say too little about the food ingested, and take for granted that patients or their friends know what is best; this is an unwarranted oversight and often causes a slow recovery.

In many cases of red and irritable eyes in children it will be found that they have a depraved appetite and eat all kinds of indigestible things; they sometimes have worms, and need a thorough cleaning out, followed by a proper diet.

The paper was discussed by Drs. Woody, Coffelt, Ross, Peak, Ralston and Boyd.

Dr. O. L. Peak reported having had three cases of intestinal hemorrhage in the new-born within the last four years, the hemorrhage coming on during the first three or four days after birth.

The first case was treated on general principles and died; the other two were saved by the use of the dessicated suprarenal extract. He gave one grain doses every hour for four or five hours then reduced the dose one-half and lengthened the time of administration gradually until all hemorrhage ceased.

Solution adrenalin chloride may be used in corresponding cases; but the powder seemed to be more acceptable to the baby.

Drs. Cox, Camp, Ralston and Barnes spoke about cases of hemorrhage.

MEETING OF JANUARY 10, 1908.

The society met in annual session and heard reports of officers. The Secretary's report showed the society had held 20 meetings, as follows: 16 regular meetings, 2 banquets, 1 open session and 1 business meeting; we have elected 16 new members, 3 have been admitted by card, making total membership for 1907, 56. The average attendance at each meeting has been $21\frac{1}{2}$, which is more than double the average attendance of any former year. The membership has been increased over 50 per cent.

The number of times members have contributed to the scientific work in 1907 has been 281; these were 12 papers, 25 subjects, 21 reports, 6 cases and 127 discussions. This amount of scientific work is also double that of any former year's work. The committee on program and scientific work have had a program for each meeting; the committee on public health and legislation suggested some changes in the by-laws, which were adopted but the work of enforcing the law in regard to the illegal practitioners of medicine has not been as satisfactory as it might have been; the committee on library have revised its rules and purchased \$100.00 worth of new books for the society; the special committee on business meetings revised our fee-bill and it was adopted by the society; the President has been present at every meeting of the society in 1907 and he is to be congratulated upon the good record the society has made under his administration; the secretary has been present at every meeting, has written 750 letters and 350 cards for the society besides doing other things to create interest in the work of the society; the treasurer's report showed a goodly balance of cash on hand; the report from the delegate to the meeting of secretaries and councilors was read and accepted, to be acted upon later.

Dr. C. A. Moore of the Lawrence-Stone county Society who has recently located here was elected to membership by card; two new applications for membership were received. On motion the officers of the society for 1907 were given a vote of thanks for the good work they had done for the society as shown by the secretary's annual report.

The society proceeded to ballot for the 1908 officers with the following result, Dr. T. A. Coffelt for President, Dr. B. F. Fortner for Vice-President, Dr. J. L. Ormsbee for Secretary, Dr. D. B. Farnsworth for Treasurer, Dr. O. L. Peak for Censor making the Board of Censors for 1908 Dr. J. C. Matthews, Dr. Lee Cox and Dr. O. L. Peak, Delegate Dr. C. E. Fulton.

Speeches were made by Dr. J. R. Boyd the retiring President, Dr. T. A. Coffelt the newly elected President, Dr. B. F. Fortner the newly elected Vice-President, Dr. D. B. Farnsworth, Treasurer and others.—J. L. ORMSBEE, M. D., Secretary.

HOLT COUNTY MEDICAL SOCIETY.

The Holt County Medical Society met at Craig, Jan. 9th.

After transacting the regular routine business of the Society, officers were elected for the ensuing year, as follows: F. E. Bullock was chosen president to succeed J. M. Davis; N. J. Tracy, vice-president to succeed W. S. Gregory; J. F. Chandler, re-elected secretary; C. L. Evans, treasurer, to succeed F. E. Bullöck.

Dr. B. T. Quigley was elected delegate to the meeting of Missouri State Medical Association, with Dr. W. C. Proud alternate.

Papers were read by Drs. Quigley and J. M. Davis. Dr. Quigley selected for the subject of his paper, "Post partum Hemorrhage" and the title of Dr. Davis's paper was "Dysentery."

An adjournment was taken at 6 p. m. to the Park Hotel where the profession at Craig had ordered a feast prepared for their visiting brethren.

After the banquet the members reassembled at the hall and the time was given over to report of cases and general discussion thereof.

The next meeting will be at Forest City, Thursday, April 2nd, when the matter of meeting oftener will be brought before the society for final action.

On the program for the next meeting are Drs. Ira Williams, J. M. Tracy and C. L. Evans.—J. F. CHANDLER, M. D., Secretary.

IRON COUNTY MEDICAL SOCIETY.

At the regular meeting of the Iron County Medical Society in December, the following officers were elected for year 1908: President, Dr. I. A. Marshal, Ironton; secretary, Dr. G. W. Farrar, Ironton; treasurer, Dr. C. C. Kerlagon, Bellevue; councilor, Dr. Jno. Q. Adams, Bellevue.

Several interesting cases from practice were presented and discussed.—G. W. FARRAR, M. D., Secretary.

JACKSON COUNTY MEDICAL SOCIETY.

MEETING OF DECEMBER 10, 1907.

The Jackson County Medical Society held its annual meeting December 10, 1907, and elected the following officers and committees:

President, C. B. Hardin; Vice-President, F. E. Murphy; Secretary, E. L. Stewart; Treasurer, L. W. Luscher.

Junior Member of the Membership Committee and Board of Censors—Halsey M. Lyle.

Executive Committee—F. T. Van Eman, Max Goldman, C. E. Wilson, O. L. McKillip, H. H. Look.

Delegates to the Missouri State Medical Association—Jabez N. Jackson, C. Lester Hall, O. H. Dove.

MEETING DECEMBER 17, 1907.

This meeting was given over to hearing the reports of committees and the following committees were appointed by the chairman:

Committee on Public Health of Legislation—Eugene Carbaugh, S. Grover Burnett, E. H. Thraikill, R. E. Costelaw and O. H. Dove. Junior member Hall Committee—R. E. Costelaw. Necrological Committee—J. Herbert Smith, J. M. Frankenberger, O. L. McKillip. Librarian—Wm. Frick.

The annual address of the retiring president, Dr. O. H. Dove gave in an extemporaneous manner a resume of the work which had been done during the year. He mentioned the fact that the society should look toward dividing the work into sections and also toward having a home of its own.

The annual address of the president elect, Dr. C. B. Hardin, was the next in order. After thanking the society for the honor shown him, he dwelt lengthily upon the society having a home and library of its own, and of resuming the fight on quacks and quackery as a society by assisting the prosecuting attorney in obtaining evidence.

MEETING OF JANUARY 7, 1908.

There being no meeting Dec. 24th-31st, the next regular meeting of the society was held in Kupper Hotel, Thursday, Jan. 7.

The scientific program consisted of a symposium on scarlet fever in which the following physicians took part: Etiology and Pathology, Dr. R. B. Brewster. Symptomatology and Diagnosis, Dr. Chas. H. Lester. Complications, W. S. Wheeler. Treatment, C. S. Merri-man.

Those taking part in the discussion were: Drs. E. Von Quast, S. P. Child, F. C. Neff, F. J. Iuen, Wm. L. Campbell, J. Q. Chambers, Jno. Punton, J. G. Sheldon, F. E. Murphy, H. G. Tureman and H. N. Jennett.

Drs. Lester, Wheeler, Merriman, each made a few closing remarks.

The next on the program was a paper entitled "Sprains," by Dr. A. W. McArthur. The paper was short, carefully prepared and covered the subject completely. Dr. F. L. Dod and Dr. E. H. Skinner discussed the paper. There were forty-six members present.

JANUARY 14, 1908.

Dr. John Punton read a paper entitled "Law and Lawyers: their Failure to Cope with Modern Medico-Legal Exigencies."

The discussion was most ably opened by Hon. John I. Williamson. This paper and its discussion will appear in the JOURNAL. The meeting was an unusually interesting one and many present took part in the lively discussion which followed.

The following committees were appointed by chairman:

Committee on Revision of the Constitution and By-Laws—A. H. Cordier, J. L. Robinson and J. H. Thompson.

Committee on Public Health and Legislation to bring the required number under the new law up to five.—R. E. Castelow, O. H. Dove.

Committee on Fee Bill—Ernest Robinson, R. T. Sloan, Jno. Weaver, Halsey Lyle, E. H. Skinner and Geo. Mosher.

Committee on Building—D. R. Porter, J. Q. Chambers and Jno. Punton.

Committee on Sociability—C. Lester Hall, W. E. Montgomery and Scott P. Child.

Committee on Politics—W. S. Wheeler, B. C. Hyde, Robert Schaufliker, W. F. Morrow and H. E. Pearse.

JASPER COUNTY MEDICAL SOCIETY.

MEETING OF NOVEMBER 12, 1907.

Those present were as follows: Drs. Shelton, J. W. Clark, Kincheloe, Neff, Snyder, Matthews, Barnett, Donohoo, Haas, A. B. Clark, Blackwell and James; visitor, Dr. J. B. Taulbee.

Dr. Snyder read a very interesting paper on gonorrhea which was freely discussed.

Dr. Donohoo, a member of the committee on post-graduate work, stated that Dr. Fortner, of Springfield, would come to Joplin and lecture to the Society on request. Dr. Donohoo said he would extend an invitation on behalf of the Society at once.

The secretary read a letter from Dr. McAlester, asking the opinion of the Society relative to the meeting to be held in St. Louis or Kansas City of the councilors and secretaries. The Society voted it an excellent idea and hoped the councilors and secretary of Jasper County would attend, the Society to pay the expenses of the trip.

MEETING OF NOVEMBER 26, 1907.

Present, Drs. Shelton, Matthews, J. W. Clark, Neff, Donohoo, Haas, Kincheloe, Barnett, Lanyon and James; visitors, Drs. R. W. Amos and J. B. Taulbee.

Dr. James stated that he had written Dr. J. M. Allen, of Liberty, extending an invitation on behalf of the Society to deliver a lecture at our annual banquet, to be held January 7, 1908, but had not as yet received a reply.

It was stated that there were a number of cases of smallpox in the city and the question of vaccination of school children was discussed. It was the opinion that vaccination should be compulsory.

The secretary read the minutes of the meeting of the committee on public health and legislation held at Nevada, October 3, for the action of the Society. All points were read separately and all indorsed. The Society specially recommended the clause establishing a uniform law for each state for nation-wide reciprocity. Dr. Barnett, chairman of the committee on Public Health and Legislation, stated that the

committee had been disappointed to a certain extent in suits brought against the illegal practitioners. He said the cases had been brought against two men in justice courts and in both cases had a hung jury. The defendants took a change of venue and the cases were dismissed by out of town courts. He further stated that the men had disappeared and he believed that hereafter the committee would bring the suits in the circuit court. Dr. Neff stated that the prosecuting attorney told him he would take pleasure in prosecuting the quacks to the limit if the Society would furnish the evidence.

MEETING OF DECEMBER 3.

Members present, Drs. Shelton, Matthews, Barnett, J. W. Clark, Neff, Donohoo, Anderson, Kincheloe, S. H. Miller and James; visitors, Drs. Taulbee, Amos and Martin.

The secretary read the application for membership of Dr. J. B. Taulbee, accompanied by a transfer letter from Mason County, Ky., signed by the president and secretary. Dr. Taulbee was unanimously elected to membership.

Moved and carried that the president appoint a committee of three with power to act to arrange for a banquet: Drs. Donohoo, Snyder and J. W. Clark were appointed. Dr. Snyder could not act and Dr. Freeman was appointed in his place.

MEETING OF DECEMBER 10, 1907.

Present, Drs. Shelton, Donohoo, J. W. Clark, Lanyon, Haas, Barnett, Harutum, Neff, Matthews, Freeman, G. W. Miller, A. B. Clark and James; visitor, Dr. Amos:

Dr. James read a paper on "Epididymitis."

The secretary read a letter of acceptance to lecture at the annual banquet from Dr. J. M. Allen, of Liberty, the subject of lecture to be "The Duodenum and its Diseases."

Dr. Barnett, for the committee on Public Health and Legislation, stated that there were three doctors practicing in the city who were not registered. Moved and carried that the committee call on the doctors and have them register or bring charges against them.

The secretary read a letter from Dr. McCormack relative to doctors vs. nostrum. It was moved to lay the matter over until the next meeting.

MEETING OF DECEMBER 17.

Present: Drs. Shelton, Snyder, Matthews, A. B. Clark, J. W. Clark, Barnett, Harutum, Steele, Neff, Taulbee, Blockwell, S. H. Miller, H. C. Powers and James.

Several interesting cases were reported and Dr. Neff read a paper on "Cleanliness."

The resolutions passed by the Kentucky Association were read by the secretary. The Society voted to indorse the action of the Ken-

tucky Association and that the secretary be instructed to write to Dr. McCormack, relative to action taken by Jasper County Society.

Dr. Blackwell asked the Society that steps be taken to place him right before the profession relative to the charge of improper conduct brought against him some time ago. It was moved and carried that the secretary report to the State Association that it might publish in the State Journal that the charge of improper conduct brought against Dr. Z. T. Blackwell had been tabled.

Moved and carried that the president appoint a committee of two to be known as the press committee and that the president act on said committee as an ex-officio member; that it be the committee's duty to give to the press what was deemed to be of interest to the public and the profession.

Dr. Snyder read the resolutions approving the building of sanitary sewers by the city. On motion the resolutions were adopted by the Society.

MEETING OF DECEMBER 31, 1907.

The following members were present: Drs. Shelton, Matthews, G. W. Miller, J. W. Clark, A. B. Clark, Willim, Grantham, Lanyon, Taulbee, Pifer, Haas, Neff, Taylor, Donohoo, Blackwell, S. H. Miller and James.

In a discussion relative to the nostrum evil, Dr. Miller said he saw a few days ago a prescription written by a well known practitioner of St. Louis, for a proprietary remedy. Dr. Miller thought the learned members of the profession should cut out the nostrums before they expected the younger members to do it; his opinion was that the medical colleges were not teaching therapeutics as thoroughly as they should. Dr. Neff stated that he had seen recently a prescription for proprietaries written by one of the best known surgeons of Chicago.

Dr. Donohoo, chairman of the banquet committee, reported that arrangements had been made with the Olivia to serve a banquet to the Society and their friends on next Tuesday, January 7, beginning at 9:30 p. m. Dr. J. M. Allen, of Liberty, will be a guest of the Society and deliver a lecture.

By request of Dr. Anderson, of committee to secure a more desirable place to hold our meetings, the secretary reported that a place had been secured at 416 Joplin St., for the consideration of the Society, the Society to pay one dollar per meeting. Moved and carried that the report be laid over until the meeting of January 14.

The secretary reported that he had attended the call meeting of the secretaries at Kansas City, December 23, where a great many things of importance to the medical profession were discussed. The Society allowed the expenses incurred on the trip.

The following resolutions, as drafted by Dr. Matthews, were unanimously indorsed to-wit:

"Whereas a bill has been introduced in congress to grant a pension to the widows of Drs. Lazear and Carroll, late in the government service, and,

Whereas Drs. Lazear and Carroll sacrificed their lives in their endeavor to secure a method by which the great scourge of yellow fever could be controlled, therefore,

Resolved, that we the members of the Jasper County Medical Society heartily indorse the bill and ask that our representatives in congress use all honorable means in their power to secure its passage."

In the regular order of business the following members were elected as officers for the year 1908: President, Dr. J. W. Clark, of Cartersville; vice-president, Dr. Philip Donohoo, of Joplin; treasurer, Dr. R. L. Neff, of Joplin; secretary, Dr. R. M. James, of Joplin; delegate Dr. J. D. Pifer, of Joplin; alternate delegate, Dr. Wm. H. Lanyon, of Joplin; censor, Dr. A. B. Clarke, of Joplin.

MEETING OF JANUARY 7, 1908.

The following were present: Drs. J. W. Clark, McClure, Donohoo, Matthews, G. W. Miller, Shelton, Harutun, A. B. Clarke, Ketcham, Neff, Pifer, Kincheloe, Steele, Grantham, Snyder, H. C. Powers, Haas, Mallony, Taulbee, Taylor, S. H. Miller and James; visitors, Drs. J. M. Allen, of Liberty, Simmons, of Prosperity, Henry of Alba, McAlester and Hill, of Joplin.

Dr. Ketcham presented the case of a young man seventeen years old, who had broken his ankle six years ago. The leg was badly deformed and Dr. Ketcham thought it due to an arrest of growth of the epiphysis of the fibula. The tibia continuing to grow caused the great deformity.

The guest of honor, Dr. J. M. Allen, delivered a very interesting lecture on the "Duodenum and its Diseases," after which the Society adjourned to the Olivia Cafe where the annual banquet was served. Dr. S. A. Grantham acting as toastmaster. Those responding to toasts were Drs. J. W. Clark, J. D. Pifer, L. I. Matthews and J. M. Allen.

The application of Drs. A. L. Carpenter, of Carl Junction, and W. E. McAlester, of Joplin, were read and given to Board of Censors for investigation.

MEETING OF JANUARY 14.

Present: Drs. J. W. Clark, Barnett, Matthews, Neff, Freeman, Taulbee, Anderson, Shelton, Lanyon, Taylor, Pifer, Kincheloe, Donohoo and James; visitors, Drs. V. S. Meridith, of Joplin, and Mr. Insley, of Joplin.

Dr. Taulbee delivered an interesting talk on anesthesia, which brought forth much discussion.

The Society expressed its sincere thanks to Dr. J. M. Allen, of Liberty, for his attendance and able lecture at the annual meeting.

The president appointed Drs. Donohoo, Barnett and Neff on the committee on public health and legislation.

MEETING OF JANUARY 21.

Present: Drs. J. W. Clark, G. W. Miller, S. H. Miller, Donohoo, Shelton, Danigan, Matthews, Neff, Harutun and James; visiting, Drs. B. M. Henry, of Alba, E. C. Haile, of Carterville and U. S. Meridith, of Joplin.

Dr. M. B. Harutun read a paper on "Pain," which was freely discussed.

The secretary read a letter from Hon. Thomas Hackney, Member of Congress, acknowledging receipt of resolutions relative to the appropriation for pensioning the widows of Drs. Lazear and Carroll. Mr. Hackney stated that he would do all in his power to secure the passage of the bill when it came before the House.

The board of censors reported favorably on the application of Drs. W. E. McAlester, of Joplin, A. L. Carpenter, of Carl Junction and B. M. Henry, of Alba. The secretary was instructed to cast the vote of the Society and the applicants were declared elected.

The treasurer's report was received and filed.—R. M. JAMES, M. D., Secretary.

MARION COUNTY MEDICAL SOCIETY.

Marion County Medical Society met at Hannibal on Jan. 31, 1908.

Roll call found the following members present: Drs. E. T. Hornback, J. N. Baskett, J. N. Primm, S. G. Smith, E. H. Bounds, I. E. Hill, E. E. Waldo, R. H. Goodier, J. J. Bourn, W. H. Hays, Thomas Chowning, A. J. Detweiler, F. W. Bush, U. S. Smith, J. C. Chilton and H. L. Banks.

Under the head of interesting cases Dr. Bourn reported again on a child eleven years old having hemorrhagic blebs about the gluteal region and on forearms and ankles. The blebs every seventh day seemed to reach their highest point of development and appeared to be associated with a sluggish condition of the bowels, for after a thorough evacuation of the bowels the patient improved very considerably. At the present time the child is to all appearances about well.

Under the order of scientific communications Dr. Baskett read a thoughtful paper on "Pond's Point," locating the "Point" midway between the umbilicus and the prominence of the ninth costal cartilage of the right side. Using this point as a center, he described a circle one and one half inches in diameter, and told of the anatomical structures found lying internally beneath this superficial circle. He stated that he had named the "Point" for a gentleman who had called attention to this region of the body in an article in the *Journal of the A. M. A.*

The Society proceeded to elect officers for 1908, with the following result: President, Dr. F. W. Bush, Hannibal. Vice-President, Dr. J. N. Primm, Hannibal. Secretary Treasurer, Dr. H. L. Banks.

Delegate to State Society for two years, Dr. Chowning. Member Board of Censors for three years, Dr. E. H. Bounds, Alternate Delegate, Dr. R. H. Goodier.

On vote of the Society the secretary was authorized to serve as reporter.

On motion of Dr. Bourn the president was instructed to name three members to draw up suitable resolutions concerning the death of Dr. Parks L. Kabler.

The president named Drs. Bourn, Chowning and Goodier.

A motion to have a banquet was lost by a vote of 8 to 6.

Drs. R. Schmidt and F. W. Bush will read papers at our meeting in February.

Dr. C. R. Dudley, formerly of St. Louis, has located at Hannibal for the practice of his profession.—H. L. BANKS, M. D., Reporter.

MONITEAU COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Moniteau County Medical Society was held at California, Dec. 12, 1907. The following members were present: Drs. H. C. Kleuber, S. H. Redman, W. H. Latham, H. W. Bramel, H. R. Popejoy, J. P. Burke, J. W. Lang, J. B. Norman, A. V. Thorpe, H. C. Freudenberger, J. B. Stewart, and W. R. Patterson. Dr. W. S. Allee of Olean, President of the State Medical Association was in attendance.

Dr. H. W. Latham reported a case with a tumor in the ischio-rectal fossa in a man 58 years of age. The case was discussed and the prevailing opinion was that it is malignant.

Dr. H. C. Freudenberger read a paper on "Opsonic Theory"—its Scientific and Practical Value." The paper was discussed by every one present and was highly commended. The Society voted that Dr. Freudenberger's paper be sent to the Journal Missouri State Medical Association with the request that it be published. The Society made an assessment of 25c. on each member to assist the State Committee in circulating tuberculosis literature, at the next meeting which will convene Thursday, March 12, the subject of tuberculosis will occupy the entire program. There will be the usual afternoon session and an evening session; the latter will be an open meeting.

The election of officers resulted as follows: President, A. V. Thorpe; Vice-President, L. L. Latham; Secretary, W. R. Patterson; Treasurer, H. C. Kleuber; Censor, H. R. Popejoy; Delegate, W. R. Patterson.

After adjournment the members with their wives attended a banquet at the City Hotel. This gathering proved to be unusually pleasant and profitable, and an elegant dinner was served. Toasts were delivered by Dr. W. S. Allee and by a number of the members of the Society.—W. R. PATTERSON, M. D., Secretary.

RAY COUNTY MEDICAL SOCIETY.

The Ray County Medical Society met in regular session in the office of Dr. L. D. Greene, at Richmond, Jan. 15. Those present were: Drs. Cook, Rentfro, Ball, Shotwell, Etherton and Greene.

Drs. J.E. Ball of Richmond, and J. H. Roney of Lawson, applied for membership in the society and were both elected. The society then proceeded to the program which consisted of a good talk on "La Grippe" by Dr. Shotwell, and was discussed by all present.

The following program was arranged for the next meeting, Wednesday, March 18th: "Hysteria", by Dr. C. B. Shotwell; discussion by Dr. R. L. Hamilton. "Small Pox" by Dr. E. W. Rentfro; discussion by Dr. J. E. Ball.—H. S. MAJOR, M. D., Secretary.

ST. JOSEPH-BUCHANAN COUNTY MEDICAL SOCIETY.

Regular meeting, Wednesday evening, November 13, 1907.

The Secretary read a communication from the State Secretary in regard to a change being made in time of meeting of the State Society. The House of Delegates of the A. M. A. has suggested that State Societies hold their annual meeting in the fall instead of the spring on account of coming too close upon the date of the American Medical Association. This matter was not discussed at this time.

Another communication from Secretary McAlester relating to a called meeting of the Secretaries and Councilors was presented, and a general discussion followed. Upon motion by Dr. Campbell, duly seconded, it was decided that in the event of such meeting being called this society authorized the attendance of its Secretary, and would allow his railroad fare.

The matter of the annual banquet being brought up for discussion a motion was made, by Dr. Campbell that we have the usual banquet, and it was seconded and unanimously carried. The chair appointed as banquet committee Dr. J. F. Owens, A. R. Timerman and F. H. Spencer.

Dr. C. R. Woodson gave a very comprehensive and interesting talk on "General Paresis" which was discussed by Drs. Owens, Elam and Leonard.

Dr. S. F. Carpenter opened the discussion on tuberculosis, detailing some of the causes of this disease, and emphasizing the importance of sunlight, hygiene and right living as important factors in its prevention. Discussed by Drs. Campbell, Leonard, Owens, Fassett, Woodson, Jacob Geiger, Bowen.

The President appointed the following as a committee on tuberculosis: Drs. Ballard, McGlothlan, Timerman, Bowen, Fassett.

ANNUAL MEETING, OF DECEMBER 18, 1907.

The application of Dr. Thomas Redmond having been favorably

passed upon by the censors, was presented for ballot and the doctor unanimously elected to membership in the society.

The application of Dr. G. A. Lau for membership in the society was read and referred to the board of censors.

Upon motion the date of the annual banquet was changed to December 27, in order not to conflict with the meeting of the Western Surgical and Gynecological Association.

The secretary presented a report from the anti-tuberculosis committee stating that in conference with the Board of Health the committee had found the board anxious to co-operate in any way possible, and the suggestions of this committee in regard to the registration of cases of tuberculosis and typhoid fever have been carried out. The committee also recommended the printing of small folders containing rules for those who are afflicted, as well as those who desire to avoid infection, and these have been ordered printed by the Board of Health. The committee has been in correspondence with the Missouri State Association and its secretary in regard to a stereopticon lecture to be given in this city at an early date.

The election of officers being the next order of business the chair appointed as tellers Drs. J. F. Owens and B. W. Toothaker. The result of the ballot was as follows; for president, Dr. H. S. Forgrave; first vice-president, Dr. A. B. McGlothlan; second vice-president, Dr. A. R. Timerman; treasurer, Dr. J. J. Bansbach; secretary, Dr. Charles Wood Fassett; censor, Dr. W. J. McCoy; delegate, Dr. L. A. Todd; alternates, Dr. C. A. Good and W. J. McGill.

REGULAR MEETING JANUARY 8, 1908.

The president, Dr. O. G. Gleaves in the chair.

After reading of the minutes Dr. Gleaves introduced the president elect, Dr. H. S. Forgrave, who, upon taking the chair, called for the retiring president's address. Dr. Gleaves responded thanking the society for the honor conferred upon him, giving an interesting review of the year's work, and pledging his hearty support to the new officers.

Dr. G. A. Lau was unanimously elected to membership of the society.

The application of Dr. M. S. Gray was read and referred to the board of censors.

The secretary spoke of the importance of having a public meeting for the purpose of arousing interest in the anti-tuberculosis movement, and upon motion of Dr. Wallace the secretary was instructed to invite Dr. William Porter to deliver a lecture in this city at an early date, and that the society pay the expenses of the meeting. Dr. Bowen stated that the Y. M. C. A. hall could be secured with stereopticon for \$15.00.

Dr. F. C. Owen, chairman of the banquet committee, submitted his report, stating that after paying for the banquet he had \$2.50 on

hand, which would be turned over to the treasurer to apply on expenses.

The secretary presented his annual report, which was received and ordered spread upon the minutes.

RECAPITULATION OF SECRETARY'S REPORT.

Annual dues, \$4.00; Meetings held during 1907, 17; Business sessions, 1; Social sessions, 1; Number of members, 1906, 73; Number of members 1907, 88; Gain, 15; Average attendance, 22; Number of papers read, 16; Number of subjects for discussion, 14; Number of cases reported, 19; Number of physicians in County, not members, 102; of these 68 are eligible.

The secretary read the report of the treasurer showing balance on hand of \$111.98. Upon motion this report was referred to the executive committee.

The secretary reported that he had attended a meeting of state secretaries in Kansas City where matters of importance to the county societies were discussed, and steps taken toward a permanent organization.

Dr. L. A. Todd opened the discussion of the evening on "Sprains" covering his topic in a able and comprehensive manner. Discussed by Drs. Wallace, Elam, Bowen, Redmond, McCoy, Timmerman, Deffenbaugh and Forgrave.

Dr. Deffenbaugh reported an interesting case of "Bowel Obstruction" in a child six months of age.—CHAS. WOOD FASSETT, Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY.

The regular meeting of the St. Louis County Medical Society was held at Kirkwood, Jan. 8. A very interesting program was carried out. A special committee was appointed consisting of Drs. Cape, Carter and J. H. Armstrong, to prepare a regular program for each meeting this year.

Some very interesting clinical cases were reported by Drs. Carter, Moore, C. L. Armstrong, Miles and others.

Dr. J. H. Armstrong presented some beautiful specimens, the result of a gall stone operation in a case under the care of Dr. Dunnavant. A very interesting and scientific paper was read by Dr. Mills of Webster Groves, on "Gastric Neurosis." A committee was appointed to draft resolutions on the death of Dr. R. M. Higgins of Glendale. Dr. Pitman and Dr. Baker two of his old friends and Dr. Wyer were appointed on the committee.

The prospects for our society for the coming year are very bright and we would like to make it the most successful year in its history.

A committee reported quite a number of physicians holding full membership in both the County Society and the St. Louis Medical Society and the matter will be discussed at our next regular meeting.

Members present: Drs. C. L. Armstrong, Miles, Mills, J. H. Armstrong, Wyer, Reynolds, Guibor, Brossard, Pitman, Forsythe, Moore, Townsend, Carter and Dunnivant.—W. H. TOWNSEND, M. D., Secretary.

SCOTLAND COUNTY MEDICAL SOCIETY.

The Scotland County Medical Society met Dec. 13, 1907, in Memphis, Mo. The following members were present: Drs. W. E. H. Bondurant, A. E. Platter, Pile, Parrish, Alexander and Foster; visitor, Dr. J. D. Skidmore.

This being the annual meeting the following officers were elected: President, Dr. W. E. H. Bondurant; secretary-treasurer, Dr. W. E. Alexander; vice-president, Dr. O. F. Pile; censor for three years, Dr. E. E. Parrish; delegate for two years, Dr. G. F. Foster. The committee on Public Health and Legislation was appointed by the president as follows: Drs. Platter, Pile, Parrish; the committee on tuberculosis, Drs. W. E. Alexander of Memphis, F. M. Johnson of Gorin, and A. L. Davis of Arbela.

The next regular meeting will be held in January, 1908.—W. E. ALEXANDER, M. D., Reporter.

SCOTT COUNTY MEDICAL SOCIETY.

The Scott County Medical Society met at Fornfelt, Jan. 6th. Members present: Drs. R. A. Sparks, Fred Ogilvie, T. F. Frazer, T. R. Frazer, McCabe, Lucas, Wescoat, Haw, Wade, Cannon and Hutton.

Dr. Tate of Fornfelt was elected a member. Dr. Atkinson of Morehouse, was received by transfer from the New Madrid County Society.

Drs. Haw, Cannon and Wescoat were appointed by the president to draft the by-laws for the society.

At the afternoon session Dr. T. R. Frazier read a paper on "Hematuria."

It was decided to elect officers at this meeting and hereafter to elect them at the first meeting in each year.

The following officers were elected: President, W. H. Wescoat; vice-president, G. S. Cannon; secretary, W. S. Hutton; treasurer, T. R. Frazer.

It was decided to have the new schedule of prices printed in every paper in the county in order that the laity might be informed and thus avoid any unpleasantness likely to come up when was asked. Adjourned to meet at Benton on the first Monday in April.—W. S. HUTTON, M. D., Secretary.

VERNON COUNTY MEDICAL SOCIETY.

At the regular meeting of this society held Nov. 7, 1907, a motion was passed to hold an open session two months later. It was placed two months off in order that the essayists might have ample time in which to prepare their papers and to give the committee on program time to select a suitable place of meeting and formulate an attractive and interesting program. The quarterly meeting of the Hodggen District society coming on the day of our regular meeting it was thought best to defer our open session until Jan. 9.

MEETING OF JANUARY 9, OPEN SESSION.

The meeting was well advertised in our local press and through our members and the public cordially invited to attend. At the appointed time we were greatly pleased to see that the public was thoroughly interested in the meeting. The session was held in one of our largest churches and every available seat was taken. The interest never flagged from the beginning until the close of the program. The following program was carried out: Music by Orchestra. Invocation, Rev. Hugh S. McCord. Music by Orchestra. Short address by president, Dr. J. F. Robinson. Music by Carnation Quartette. Paper, "Tuberculosis," by Dr. E. A. Dulin. Discussion by Dr. H. C. Jarvis, Schell City. Vocal Solo by Miss Willie Prewitt. Paper, "Some Relations of the Profession to the Public," by Dr. J. Robt. Buchanan. Response, by Rev. W. W. Burks. Pipe Organ Solo, by Miss Marie L. Talbot. Paper, "Insanity," by Dr. G. Wilse Robinson. Violin Trio, by Cottey College Students. Benediction, Rev. W. T. McClure. Organ Music, Miss Talbot.

The short discussions and the musical numbers added very greatly to the interest of the occasion. The universal expression of the audience was one of approval and they were enthusiastic in their demand for a repetition of the open session. We feel greatly encouraged over the fraternal feeling existing among the members of the profession in this county, and the expressions of interest in our work by the public.—J. ROBT. BUCHANAN, M. D., Councilor 16th District.

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ORIGINAL ARTICLES

SALPINGITIS.

BY JOHN G. SHELDON, M. D., OF KANSAS CITY, MO.

As a rule, salpingitis, especially the suppurative variety, is due to gonorrheal infection. Bacteriological examination, according to Menge,¹ shows no micro-organisms in 60 per cent of the cases; and the presence of the gonococcus in 70 per cent in which bacteria are found. These observations are misleading, for in many cases of salpingitis, especially those caused by the gonococcus and the colon bacillus, the contents of the tube are sterile but the infecting organisms are present in the walls of the tube. Bumm² made the statement that the gonococcus did not penetrate beneath the mucosa in salpingitis, but he is undoubtedly not correct. Magill and Martin³ have found that in salpingitis in which the contents of the tube were sterile, micro-organisms were found in abundance in the walls of the tube. So it seems, in determining the relation of bacteria to salpingitis, it is not sufficient to make cultures from the contents of the tube, but the entire thickness of the walls of the tubes must be examined.

While it is doubtless true that most cases of salpingitis are caused by micro-organisms reaching the tube through the genital tract, not all inflammations of the tubes occur in this manner. Salpingitis due to the spreading of inflammation from surrounding structures is well known; and metastatic salpingitis is a possibility. It is also probable that salpingitis may result from infected peritoneal serum draining into the tube.

In the female there seems to be a tendency for foreign particles in the pelvic peritoneal cavity to be carried into the fallopian tubes. Henle believed that the ciliary motion of the epithelium covering the abdominal extremity of the tube, produced currents in the serum in the pelvis and that these currents, together with the movement of the cilia of the epithelial cells, which movement is directed away from the peritoneal cavity, brought the ovum from the peritoneal cavity into the uterine cavity and might cause other substances to travel the same route. Pinner, Weigert and Berkeley⁴ placed particles of cinnabar

in the peritoneal cavities of rabbits and found that in a short time they were carried through the fallopian tubes and uterus into the vagina.

Lodi placed tubercle bacilli in the peritoneal cavity of rabbits and found that they were carried into the fallopian tubes in a short time. Murphy and Evans⁵ found that tubercle bacilli in the peritoneal cavity of monkeys gravitated into the pelvis and were carried into the fallopian tubes, unless the infection was excessive in which case the orifices of the tubes were matted together, as if an effort was being made on the part of nature to protect the genital organs from infection. From these observations it seems probable that infected peritoneal serum may carry micro-organisms into the fallopian tubes and result in salpingitis. Does this occur to a degree of frequency to be of practical value? This cannot, at this time, be determined, chiefly because clinicians have failed to observe closely, or have neglected to record their observations.

Physicians, especially those who operate, have observed a more than accidental relationship between salpingitis and appendicitis. In some of these cases a tube or an appendix is secondarily affected from the other by a direct spreading of the inflammatory process; but many times adhesions or continuity of tissue fail to explain the simultaneous occurrence of these diseases.

It is maintained by some that an anatomical structure, known as Clado's ligament, connects the appendix with the right uterine appendages and is responsible for inflammatory processes spreading from the one to the other. Most careful observers deny the existence of Clado's ligament. Barnsby, Ferry, Webster and others, have searched for it but have never found it. They admit that occasionally a fold of peritoneum can be found extending from the outer part of the right broad ligament towards the cecum; but they claim that this peritoneal ridge is not connected with the appendix in any way, and that no blood vessels or lymphatics connect the appendix with the tube or ovary. Laforgne found this fold more or less marked in 17 out of 90 examinations, but could demonstrate no vascular or lymphatic connections between the appendix and right tube and ovary. Porrier and Cuneo state positively that the lymphatics do not connect these organs.

If there is a relationship between appendicitis and salpingitis it would seem that the so-called Clado's ligament does not explain the co-existence of these diseases. It may be that in certain cases of appendicitis infected serum is present in the peritoneal cavity, and the serum currents of Henle carry the infection into the tubes. Tavel and Lanz have shown that when the peritoneum is injured or inflamed, colon bacilli frequently pass from the intestine into the peritoneal cavity. I believe the same condition is present in some cases of appendicitis. In 1904 I made bacteriologic examinations of the serum around the appendix in 20 cases of non-perforated acute appendicitis, and found the colon bacillus present 19 times and a streptococcus once. It may be that acute appendicitis infects the pelvic serum in some instances, and in this way causes salpingitis.

Now if appendicitis can in some cases cause salpingitis; can, and do, certain other intra-abdominal diseases do the same thing? Nauwerk,⁶ Bozzi,⁷ and Reisinger,⁸ state that the peritoneal serum is contaminated in ulceration of the cecum. Welch has found that colon bacilli pass into the free peritoneal cavity in cases of non-perforating intestinal ulceration. In some cases of typhoid fever—without perforation—colon bacilli are found in the free peritoneal cavity. So it is possible that many abdominal diseases may cause conditions favorable to the development of salpingitis. The tubes, as Bybee says, draining the peritoneal cavity, in a measure protect the patient from peritonitis at the expense of producing salpingitis.

The intestinal origin of salpingitis is not a new theory. It has been discussed for many years. Pozzi was the first to recognize the intestinal origin of salpingitis. In his first article on this subject he reported three cases of non-adherent salpingitis, believed to be caused by typhoid fever. In these cases the structures of the tubes were not examined for micro-organisms.

Shauta, Hartman, Marx, Reynaud, Girode, Jayle and others, have also reported cases of salpingitis believed by them to be caused by infected peritoneal serum. The colon bacillus was as a rule found in these cases.

Tuberculous salpingitis, the most frequent form of genital tuberculosis in the female, is by no means a thoroughly understood disease. It is generally agreed, however, that as a rule the fallopian tubes are the organs first involved in genital tuberculosis in the female; that genital tuberculosis is secondary in 90 per cent of the cases; and that there exists more than an accidental relationship between tuberculous salpingitis and tuberculous peritonitis. The method of infection of the tubes with tubercle bacilli is a disputed question. Some contend that the infection is metastatic; others believe that ascending infection through the genital tract occurs most commonly; while a considerable number of observers hold that infection from the peritoneal cavity is the rule.

Metastatic tuberculous salpingitis is believed, by Ehrendofer,⁹ to be a not uncommon condition. While this may be true, there is no positive clinical proof that tuberculous salpingitis is a blood or lymphatic infection. Experimentally, Lundowzy, Spano, Rohlff and others, while succeeding in producing metastatic genital tuberculosis in male animals, failed to secure corresponding results in females.

That tuberculous salpingitis may result from infection ascending through the genital tract is, by some, believed to be true in a percentage of these cases. Cohnheim was the first to suggest ascending tuberculous infection of the female genital tract. Fernet and Seville have reported a case of genital infection in a woman resulting from infected semen. Menge,¹⁰ Martin¹¹ and Orthmann¹² believe that the female genital tract is often infected with tuberculosis in this manner.

Against the theory of ascending tuberculous salpingitis it may be stated that the fimbriated extremities of the tubes are first involved, and the orifices of the tubes are not closed in the early stages of the disease. A tuberculous infection spreading against the ciliary current is also unusual, and, experimentally at least, does not occur. P. Bumgarten repeatedly infected the genital tract of rabbits with tubercle bacilli at different levels, and found that while tuberculosis might involve other structures by continuity of tissue, the infection, in the genital tract, always spread downward and never against the ciliary motion of the epithelium. Amann, after giving the subject much study, believes that ascending tuberculous infection of the female genital tract never occurs.

The theory that tuberculous infection of the tubes may occur from the peritoneal cavity has many adherents. The peritoneal currents of Henle and Pinner may carry tubercle bacilli into the tubes and induce salpingitis. Williams¹³ believes that this is by far the most common origin of tuberculous salpingitis. Weigert and others have shown that tubercle bacilli in the pelvic serum may be washed into the fallopian tubes and produce salpingitis without affecting the pouch of Douglas.

Now if infected peritoneal serum can result in salpingitis, how do the tubercle bacilli get into the peritoneal cavity? Sidney Martin, Jani, Ravenal,¹⁴ Welch and others, have found that tubercle bacilli can, and do, pass through the intestinal walls apparently without the presence of mucous or peritoneal lesions, and that often virulent tubercle bacilli are found free in an apparently normal peritoneal cavity. Wright and von Behring believe that very often pulmonary and other tuberculous involvements result from contaminated peritoneal serum, reaching the blood stream by way of the lymphatic channels. From these observations it would seem that it is not essential that macroscopic intestinal or peritoneal tuberculosis should exist to explain an abdominal origin of tuberculous salpingitis.

This brings up the much discussed question of the relation between tuberculous salpingitis and tuberculous peritonitis. Most observers believe that there exists more than an accidental relationship between these diseases; but some hold that the salpingitis causes the peritonitis, and others that the reverse is true. Treves, Wagner,¹⁵ Phillips,¹⁶ Borschke,¹⁷ J. W. Williams¹⁸ and Russel, strongly advocate that the salpingitis is caused by infection from above. Bybee holds that not only are the tubes not responsible for tuberculous peritonitis, but they offer a protection against tuberculosis of the peritoneum by draining the cavity. He offers post mortem and clinical findings in support of his contentions. Some clinicians, among them Mayo, believe that the tubes are responsible for the peritonitis because the maximum intensity of the changes is most often found in the location of the tubes; and removal of the tubes is often of value in the treatment of tuberculous peritonitis.

It is probable that in the female, tuberculous peritonitis can and does develop without involvement of the tubes, but may secondarily contaminate them. It is also probable that tubercle bacilli may be carried by the pelvic currents into the tubes and produce salpingitis in the absence of a tuberculous peritonitis and that the tuberculosis thus started in the tubes may spread to the peritoneum. In considering this subject it should be kept in mind that tuberculous salpingitis begins in the outer ends of the tubes; that the tubes are not closed in the early stages; that there is every reason to believe, from the observations of Illich,²⁰ Jans,²¹ and others, that tuberculous salpingitis in the early stages produces no symptoms, and that Tavel, Lanz and others have shown the tendency of the colon bacillus to pass through the intact intestinal canal and attack diseased structures. Most removed tuberculous tubes are the seat of mixed infection. It may be that this mixed infection has caused some of the most distressing symptoms; and it is possible that the removal of this mixed infection explains some of the improvement following salpingectomy in cases of tuberculous salpingitis and peritonitis.

The treatment of salpingitis is surgical. The indications for treatment, and the methods employed, are, on the whole, generally agreed upon; but various differences of opinion are held regarding certain minor points. As a rule one's views are molded by the extent and variety of one's personal experiences. For this reason we may today frown on what we did yesterday; tomorrow we may improve upon today's work; and occasionally turn back to find that a discarded method has unusual merit.

Removal of the tubes, the recognized curative treatment for all but the mildest forms of salpingitis, should, as a rule, not be done in the acute stages. Most acute cases become subacute or chronic, and it rarely occurs that one is obliged to do an operation, other than drainage, during the acute stages of salpingitis. If it becomes necessary to operate during the acute stage, when pus is present, vaginal drainage should be the operation of choice. An abdominal incision should be made only in exceptional cases.

In doing operations for acute suppurative salpingitis, complicated with pelvic suppuration, the operator should be content with drainage unless he has had an extensive experience in this class of work. The separating of adhesions, and the removal of diseased tissue are more serious than drainage, which affords temporary relief and makes a secondary operation comparatively safe.

Removal of the tubes is, as a rule, best accomplished through an abdominal incision. The vaginal operation, advocated so strongly by the French, has in my judgment, a very limited field of usefulness. After trying this method in four selected cases I have discarded it.

In salpingectomy it is generally agreed that the uterine portion of the tube should be removed, especially in gonorrheal cases. The

ligation of the arteries at each end of the tube; excision of the tubes; and suturing the upper border of the broad ligaments is applicable for all cases. It has been my practice when removing tubes from patients with lax broad ligaments, to either resect a V-shaped portion from the top of the broad ligament, as recommended by Dudley, or to clamp the mesosalpinx and ligate it, which accomplishes the same purpose, namely, shortens the broad ligament.

In doing pelvic operations, complicated by old and numerous adhesions, separation of the tubes from the uterus at the beginning of the operation is of decided value in some cases. This allows one to get between the folds of the broad ligament and separate the tube from within outwards, a more easy and rapid method than working in the opposite direction. Bisection of the uterus, as an aid in some of these cases, may occasionally be desirable. In all but exceptional instances it is unnecessary. Cutting through the wall of the uterus, but not into its cavity, recommended by Richardson, of Albany, may be advantageous and should be kept in mind. All of these modifications of technique may at times be used to advantage; but, as a rule, they are not essential to secure good results.

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LAW AND LAWYERS: THEIR FAILURE TO COPE WITH MODERN MEDICO-LEGAL EXIGENCIES.

BY JOHN PUNTON, M. D., OF KANSAS CITY, MO.

For a physician to undertake to demonstrate the failure of law or presume to criticise lawyers and their special work, would seem impertinent, if not ridiculous. This, however, is exactly the unpleasant task my theme suggests. Nor is this action unwarranted, for so universally common and prevalent has the reverse of this become that we are often reminded of the truth of the proverb which admonishes us "that people who live in glass houses should not throw stones."

Hence we find quite often the science of medicine not only subject to undeserved censure, but medical men generally are severely criticised by lawyers, while the prevailing methods of medical practice are regarded by them with contempt and even disgust; and medical testimony in courts of law is today treated by the legal profession as a laughable farce or standing joke. To turn the tables and place the blame where it properly belongs, would, therefore, seem not only pardonable but absolutely just and warrantable as it comes strictly within the legal province of self-defense.

Moreover, in this discussion of law and lawyers, we think we can demonstrate that both the science as well as the practice of law are woefully deficient and even incompetent to cope with modern medico-legal exigencies, because of its ultra conservatism and lack of up-to-date amendments and requirements, while many of its representatives are given to even more subtle and various polite methods of trickery than can be found identified with the practice of medicine. Indeed as medical men and members of a great and noble profession, while we recognize and deplore the shameful ignominy imposed upon us through the wily, disgraceful and unscrupulous methods of the quack and charlatan, yet we make bold the assertion that no such amount of unethical conduct or more damnable rascality exists today in the medical profession—bad as it really is—than that which is found to be associated with the modern practice of law.

Nor will it be necessary in proving these assertions to resort to any personal abuse or indulge in any unbecoming conduct. On the contrary occasion will be taken to freely quote the opinions of well-known competent lawyers, concerning the weakness of law as a science and the serious evils which now beset the practical administration of law and justice. It would, however, in the brief time allotted me, be impossible to enlarge upon the numerous features wherein the law and lawyers fail to justly adjudicate modern medico-legal exigencies.

Only a few of the more glaring examples can therefore be used and these by way of illustrating the great need of legal reform.

Evils of Legal Technicalities: Perhaps the most conspicuous ex-

ample wherein the weakness of law and lawyers fails to cope with modern medical exigencies, is seen in the "quest on the part of lawyers to detect some obscure error" and thus release the client from punishment on the ground of some real or fake technicality, even where there exists no doubt of guilt. Such flagrant violations of justice have become so very common and universal, more especially in cases where medico-legal questions are involved, that not only doctors but the more ethical members of the legal profession have become ashamed of such travesties and are now advocating and even engaged in devising means and measures for reform. Hence in a recent address before the Kansas City Bar Association, Judge Charles Amidon, presiding Judge of the Federal Court, created quite a sensation among the lawyers who were present in what he had to say concerning this evil. Among other things, Judge Amidon said: "It is the hope of every criminal; this hope of the commission of error. * * * If a man has money enough to hire sufficiently able attorneys to prepare a case with sufficient elaboration, he need have little fear of criminal punishment. And by that I do not charge corruption. I simply confess that a trial judge is human, and with the technical rules of law and evidence in the majority of cases, it is impossible that error shall not be found in the record.

"What is the result of the system in this country? It makes the trial a fight not for justice, but to get error into the record. In English courts, the whole effort is to work out justice, not in the abstract, but between plaintiff and defendant. This quest for error makes the trial of cases here a mere quibble. No more effective scourge can be placed in the hands of the strong with which to oppress and afflict the weak than the easy reversal of cases for matters that do not affect the merits." Commenting on the address the next day in an editorial, the *Kansas City Star* said: "It was opportune that a jurist of the first class should call attention to the real underlying evil of the social system in America, and should do it in a speech to an association of lawyers eminent for their proficiency in the technical devices of the courts. But it is the lawyers who make the courts. It is the lawyers who devise loopholes in the laws. It is the lawyers who take a fee from a known boodler, or other criminal, and squeeze him through one of these flaws of their own devising, to go unwhipped and none the worse for the mishap of being caught."

"The technicalities of courts, for which lawyers are responsible, constitute the underlying evil of the American life. This cannot be too often repeated. Nor is its truth confined to trials of statutory crimes. The technical evasions by which trusts rob the people and threaten the social fabric, as well as the vermicular processes by which boodlers prey unmolested upon society, are the work of the lawyers and could be changed in one day by the lawyers if they would demand the change."

Insanity Versus Responsibility: Then again, the law, as now applied to insane criminals, is at times evidently most unjust and full of

error. The fundamental fault in such procedure is the application of the legal test of responsibility, viz., the knowledge of right and wrong as to the act at the time of the commission of the crime. The fallacy and injustice of such a rule, when applied to the insane, has been so often demonstrated and condemned by medical writers as to need no further enlargement on my part; suffice it to say that its application often proves most unjust and inhuman.

At a recent meeting of the New York Psychiatric Society, Dr. Pearce Bailey* read a very instructive and valuable paper concerning the improvement of medico-legal methods. Speaking of the right and wrong test he said: A loophole had been left in certain states by adding the uncontrollable impulse clause. When this clause, however, does not exist the fate of the prisoner depends upon the construction which the jury sees fit to place on the knowledge of right and wrong as mentioned in the law.

The question would naturally arise why, if so unsatisfactory, this test has stood so long with so little variation. He claimed, the reasons were evident, defective as the knowledge of right and wrong as a test of responsibility, no better substitute had ever been offered. "Another reason why this law has stood might be found in the fact that the matter is always in the hands of laymen to whom the science of psychiatry is practically unknown. Modern psychiatry demanded that this test be not replaced by another but be done away with altogether." No criminal procedure could be at harmony with modern views of mental disease as long as there was no middle course between responsibility and irresponsibility, and no means of judging between them except those furnished by the knowledge of right and wrong. Nothing, however, had been more plainly taught by recent advances in medical science than that different mental states make different degrees of responsibility.

No law which failed to take cognizance of this fact could be satisfactory to doctors, much less alienists. A law should, therefore, be passed which would overcome not only this, but many other evils of modern court procedure concerning insane criminals.

Nervousness and Incipient Insanity: The treatment now accorded those suffering from the various forms of nervousness also furnishes another conspicuous example where law and lawyers fail to cope with modern medico-legal exigency. Every physician with any amount of practical experience, and who is familiar with the progress made in neurology and psychiatry, can fully appreciate the difficulties which now beset appropriate legal provision and medical control for his nervous invalids or those who suffer from the various psycho-neuroses. The modern medical aspect in the treatment of many such persons at least indicates, if not absolutely requires, *rigid isolation* with more or less *discipline* and even *mild restraint*, and urges this as the one thing pri-

*Journal of Insanity, July, 1907.

marily needful, more especially in their incipency; and when this is early enforced the probability of a speedy cure is greatly enhanced.

Before resorting, however, to such modern sane curative measures, the law as well as the lawyer informs you that your patient suffering from neurasthenia, hysteria, hypochondria, psychasthenia, simple melancholia, drug habitues, feeble mindedness—or mentally backward children, including simple forms of precocious dementia, all forms of inebriety and even those nervous invalids suffering from simple morbid fears, doubts and impulsions with tendencies to suicide, and even to commit crime, all of these, says the law, must first of all be adjudged insane before they can receive such humane and effective modern treatment. Rather than submit to such imposition, such persons justly refuse such a legal procedure, even when they know by such refusal they injure their chance of recovery; hence, many a person suffering from so-called nervousness, which is often another name for borderland insanity, is allowed to slowly merge from a curable into an incurable condition; and many such, later, become a ward either of the state insane hospital, penitentiary or poor house, for the rest of their lives; and this because the law as it now stands is inadequate to meet such a modern medico-legal necessity. A law to adjust this legal defect is urgently needed and thus prevent the ever increasing tide of insanity and allied forms of criminology.

Legal Aspects of Medical Evidence: The subject of medical testimony in courts of law also offers another striking example of the weakness of law and lawyers and their failure to cope with modern medical exigencies. Indeed, so serious have its attending evils become that not only are the leading physicians demanding legal reforms, but the more ethical members of the legal profession are already taking steps to remedy such evils. As the subject of medical evidence embraces so many features wherein law and medicine fail to agree, I thought I could do no better than use the arguments set forth by Judge Emery, Chief Justice of the Supreme Court of the State of Maine, in his recent able address before the state legislature, in which he suggested the remedy in the form of legislation for such evils.

In this address to the legislature Judge Emery took occasion to recite the many causes which rendered medical expert evidence so very unreliable and even worthless, besides reviewing in detail the many failings of the average medical witness when called upon to testify in courts of law. By virtue of his exalted position and ripe experience as a lawyer, Judge Emery is fully competent to present the prevailing views of the legal profession concerning the doctor and his many failings in courts of law, beside indicate to us the legal aspect of medical evidence from its modern standpoint, which is as follows:

After referring to medical testimony as a necessary evil, he then spoke of the inexactness of medicine as a science and claimed that many dogmas believed and given out today as medical truths may be aban-

done tomorrow, and the only safeguard against this infirmity is for the medical witness to frankly avow its existence and for the tribunals to recognize it and base their judgment as little as possible on what are simply the theories and doctrines of the day. He then enlarged upon several causes for legal distrust of the medical witness, such as, the natural zeal of the doctor to magnify his profession on the witness stand and parade his learning, with the result of stating his own personal theories and giving these as medical truisms, instead of confining himself to those facts attested and approved by the vast body of the medical profession. The fear of admitting their ignorance in public, also leads many physicians to incur the risk of mis-statement; hence they rely too much on general knowledge and experience without making any special investigation of the matter in controversy; consequently they commit blunders which are inexcusable and leave them open to public criticism and censure. "The mental constitution or temperament of the medical witness," he also claims, is a factor which greatly affects medical testimony, hence some physicians easily become confused on the witness stand and readily get mixed up in their statements, thus contradicting themselves. "The much-debated hypothetical question" is also a prolific source of evil in criminal procedure, as it rarely states the facts fairly and the answers are thus misleading and most unsatisfactory. "The growing practice of having the medical witness attend the trial and hearing the evidence and then placing him on the witness stand and asking for his professional opinion, all of which leads to gross errors in judgment." These and many other causes were cited, but the most prolific cause of the disrepute in which medical evidence is held, according to Judge Emery, is "the partisanship excited in and displayed by medical witnesses."

This tendency, Judge Emery claims is aggravated by two practices, viz.: 1st. "The extra and often large compensation paid," or the retainer fee, which means, the greater the fee the greater the desire to be called as a witness; and 2d, "that of the physician acting as a witness and also as tutor or adviser to the party or attorney calling him." Testimony so given he claims is very unsatisfactory and devoid of value. The bill proposed by Judge Emery, was intended to remedy all these evils by authorizing the court to appoint a medical commission to examine into the merits of the case, irrespective of the lawyers on either side, but unfortunately the bill failed to pass.

Those of us who have had large experience in courts of law cannot fail to recognize the force and validity of the arguments thus set forth in detail by Judge Emery of the many weaknesses which beset the medical witness. There is, however, another side to this question which the learned judge fails to mention, and this pertains to the grievous errors of the law itself together with the many evils associated with its practice. When these are as rigidly scrutinized and as ably presented in all their nakedness, the underlying cause of the various forms of miscar-

riage of justice is readily explained, as this undoubtedly lies at the root of all such evils.

Crime a Business: To think that an alliance is formed between criminals and certain lawyers, thus making convictions almost impossible, seems absurd, if not beyond the comprehension of any sane person. Such, however, is said to be the case, by a leading judge of New York. "It is perfectly apparent," says Judge Cornell, "to anyone sitting in a magistrate's court, where we get to know more about crime than in any other walk of life, that there are regularly organized bands of professional criminals in this city who are daily growing bolder. It is no exaggeration to say that crime in New York is now on a business basis. This is shown in the ease and rapidity with which pickpockets, wire tappers, confidence men and thugs, find bail, and lawyers to defend them. The growing alliance between criminals and certain lawyers has become so open that I have come to know what counsel different sorts of offenders will have appear for them. There are specialists, so to speak, in all branches of rascality." Now what is true of New York, is also true of other large cities not excepting Kansas City. If time allowed there are several other features that could be profitably discussed in this connection, such as:

"Faults concerning the jury system."

"Unethical modes of obtaining and introducing medical testimony."

"The bulldozing arrogance of the lawyer in the examination of the medical witness."

"The refusing to introduce the truth as testimony by the lawyer when it reflects upon his client."

"Faulty methods concerning the examination of one accused of crime."

"Gross ignorance of medical science among lawyers."

This is one of the most serious evils concerning lawyers for many are unable to properly conduct a medical examination and extract the medical truth, owing to their own educational weakness. This subject, however, has already been referred to, in a former paper entitled "Why Railroads and Similar Corporations Lose Their Law Suits."* Then again, the recommendation by Judge Emery that physicians should obey the court subpoena instantly and testify in court like any other ordinary witness, for the common statutory fee. This in my judgment is open to serious objection. Would the leading and most experienced able lawyers of Kansas City be willing to devote their time and talented services for a like condition? Or would even the learned judge himself enjoy such intrusion on his time and talents for such a paltry fee? Moreover, the harsh reflections and contemptuous discussion of medical fees by the lawyer in court, whereby he informs the jury that the medical fee is extravagant and hints that it savors of dishonesty, deserves condemnation and should be regarded as unethical for it is not often ap-

*Kansas City *Index-Lancet*.

preciated by the jury that the fee of the lawyer usually includes 50 per cent or more of the gross receipts of the judgment or verdict.

Inexactness of Law as a Science: Now a pet belief is held by lawyers to the effect that law is an exact science while medicine is inexact and most unreliable. This doctrine is also readily grasped by the newspaper reporters, who in flaming headlines inform the public that the science of medicine as practiced today is too old and antiquated to be of any further use and that its tenets are so misleading that even the more competent medical practitioners are highly impractical men and at best are out of date old fogies. Hence their opinions concerning disease and its prevention and cure are not, in these modern days of hygienic and psychic therapy, worthy of any respect, much less confidence or credence.

Consequently we find the lawyer taking great delight in twitting the doctor on the witness stand concerning the ancient origin of the science of medicine and its relation to all forms of superstition and mysticism, and declares in a contemptuous, jestful manner, to the public as well as to the jury, that because of its hoary age and non-progressiveness, as well as lack of scientific exactness, the opinions or deductions by medical men from its study are not only unreliable, but very misleading and utterly void of any practical value. Such a vicious doctrine is readily acquired by the street newsmonger, who takes pride in reporting it to the public by the aid of sensational headlines, who promptly accepts it as the truth. While, as medical men, we acknowledge the ancient origin of medicine and deplorably recognize its many weaknesses, yet we protest against the unjust charge of being members of an old, antiquated, good-for-nothing, impractical, non-progressive, inexact, dishonorable, pseudo-scientific, medical profession.

Indeed we have listened and suffered from this sort of newspaper rot and lying criticism from lawyers and reporters until patience ceases to be a virtue and the truth needs to be told by an abler pen.

Inadequacy of Law as a Science: It is, therefore, very refreshing to find a lawyer of lawyers, one who is well known and recognized as an eminent legal authority in America, telling us in a recent public address, that while every other branch of human industry and department of intellectual endeavor has gone forward, there has been absolutely no progress made in law for over 5,000 years, and that the same law which obtains today was in force in the city of Athens, 420 years B. C. Such is the declaration of Eugene Ware, the noted lawyer and scholarly poet of Topeka, Kansas. To use his own language: "That so far from being an exact science or a progressive study, there has actually been no improvement in the law or the practice in the last 5,000 years. I maintain," said Mr. Ware, in his address to the Oklahoma and Indian Territory Bar Association, "that there is not a law in our code of legal procedure today that was not in vogue in the city of Nineveh 5,000 years ago, and which was not used in Athens 420 years before Christ."

A severer indictment of the law as a learned profession, and of law-

yers as devoted mainstays of society could hardly be imagined than that. No progression in 5,000 years, no new methods to speed or assure justice and thereby promote the welfare of society. Every other branch of human industry and department of intellectual endeavor has gone forward, while the law has stood stock still. Surely the lawyers have no room to swell up and boast of their superiority in up-to-dateness or scientific exactness unless it be in slick modern modes of trickery to evade lawful justice. Hence they must not complain when we as physicians claim that the law, as administered and practiced today, is wholly incompetent to cope with modern medical exigencies; indeed, we believe that certain laws should be amended and others enacted in order to meet the medico-legal requirements of the age in which we live.

The progressive advance in medical science has rendered finer discriminations in classification and diagnosis of diseased conditions possible and consequent improvement in means and measures for their alleviation, prevention and cure. This, therefore, necessitates similar progress and development in medical jurisprudence as well as demands the hearty co-operation and support of our legal advisers, and when these fail to be forthcoming, as they are today, we as medical men are unable to furnish the sick and afflicted the help and assistance which modern medical science clearly demands, in the scientific care and treatment of morbid conditions involving medico-legal problems.

Unfortunately, from the standpoint of the average lawyer, all doctors are alike, irrespective of their special qualifications, while their professional wares, which consist of their scientific medical knowledge, time, skill, and recognized authorship, together with their manhood and other virtues of character, are considered by them as marketable goods, hence open to all those who choose to purchase at a given price. More especially is this true, the lawyer claims, when it comes to testifying in courts of law for, they reason, we are all members of the same profession, hence, "tarred with the same brush."

Consequently, we necessarily bear the legal brand of being either a medical liar or a vagabond. This is implied when they state that every physician has his price while his testimony can be bought in secret. That there are, undoubtedly, men in the medical profession who will stoop to the lowest depths of financial degradation, and are willing to "sell out" their consciences to the highest bidder we allow, but such men are unethical quacks and charlatans who, however, readily find their counterpart in the legal profession in the form of the "snitch" who also are in but not of the legal ethical fraternity. When, however, any ethical lawyer or doctor by force of circumstances is brought in contact with the questionable methods and statements of a trio of human vultures like the snitch lawyer, the quack doctor and the malingerer, they must remember that they are dealing with the most damnable combination of rascality in existence and must be governed accordingly.

Moreover, we are accused by lawyers of partisanship and re-

sorting to unethical means of favoritism on the witness stand at the expense of the almighty dollar. But what about the lawyers and their failings in this direction? Hear what a member of their own craft has to say. "There are hundreds of lawyers in Missouri," says Judge Roberts, formerly Professor of International Law in the University of Missouri, "who induce people to go to law when there is no good ground for them to do so. Some of them employ 'snitches' to drum up business. No lawyer ought to be allowed to practice a day after he is found out. Many a lawyer will take a case when he knows his client is clearly in the wrong. Courts are established to enable people to get their rights, not to enable them to escape punishment or judicially to wrong others. The lawyer who knowingly strives to get for his client a lighter punishment or heavier judgment than he believes he deserves may, in the opinion of his fellow-lawyers, be guilty of no offense, but he cannot successfully defend his conduct at the bar of good morals."

A recent article by Samuel R. Moofitt, in *Collier's Weekly* on "Lawyers as Public Enemies," says: "Reformers have been fighting corruption in America for forty years and they are just beginning to learn where their real enemies are. They started with the idea that the trouble was with the politicians. A few years ago they begun to realize that the politicians were only the small end of the evil, and that for every corrupt alderman or boss who sold, there was an equally corrupt and more dangerous business man who bought. They have still to learn that the corrupt business man would be comparatively harmless if he could not hire a legal expert to teach him how to buy safely. No stolen franchise could be held, no criminal trust could stand, if legal talent had not cunningly fashioned a charter and studied out the loopholes in the law."

"Under the code of ethics by which a lawyer is held justified in hiring out his *brains and his conscience to the highest bidder*, the public must always suffer because predatory private interests can always outbid it." "A corporation that is trying to steal ten millions of public property can afford to pay one million to the lawyers that plan and execute the job, but what machinery could be devised by which a community could offer a similar bribe for its defense?" Hence as physicians we contend that the law itself, as well as the lawyers in their interpretation of it, is largely responsible for many of the shortcomings which they now charge to the doctor.

In thus urging these medico-legal reforms some degree of hesitancy would have attended the outspoken methods pursued if they emanated solely from the standpoint of a physician. Those of you, however, who have kept in touch with modern secular literature, cannot fail to have observed the severe condemnation which lawyers have received from the public press, owing to flagrant violations and numerous miscarriages of justice for which they are said to have been solely responsible. Every new issue of the various popular magazines and periodicals, as well as

high class journals and newspapers have articles today in which the rascality of lawyers—and shyster practices of lawyers are laid bare. No less conspicuous in this warfare of exposure of the bold and infamously unethical forms of legal practice now so common is our own local valued and influential papers, *The Star* and *Journal*, whose columns and editorial pages have literally been teeming for some time with details of the many serious evils concerning the statutory law, as it is construed and practiced in our various courts of law.

No apology is therefore needed when we state that the medical profession—bad as it really is—could not possibly surpass the rascality which by common consent, these public conveyances now claim surrounds the law and its practical administration. Moreover, it is also clear to those who have made a critical study of the premises that in spite of the disgrace and calumnious reflections cast upon the medical profession by the unethical conduct of some of its members as well as by certain lawyers, nevertheless, there still remains an ethical medical profession whose members are known to be free from the vices enumerated and whose conscientious scruples and high moral character places them far and beyond the temptations which tainted money offers. This is demonstrated in the knowledge and conduct of their daily professional life and ethical practice; and what is true of the medical profession we believe also applies to that of law and this fact furnishes both these professions their chief redeeming virtue and future hope of success in combating the many evils which are now associated with the practice of law and medicine.

In conclusion, if the law itself was amended to meet modern medical exigencies and the lawyers themselves reformed in their methods of unethical practice the chief cause of many of the evils associated with the solving of many of the more intricate medico-legal problems would thereby be removed; while the doctor and the lawyer would be better prepared to subserve the ends of justice.

Indeed the greatest moral need of our time is a revision of the standard of legal and medical ethics. Reform work will be an uphill undertaking until the professions that absorb the best minds of American youth are purified by the formation of a class sentiment in the law and medical schools, which shall hold it as disgraceful to sell out the public as it is now held to sell out a client and a patient. A conference is therefore urged between the members of the American Bar Association and the American Medical Association with a view of appointing a joint committee with full power to act; and a resolution or motion favoring such a movement emanating from this great and influential county medical organization would not only be conducive towards promoting a higher standard of both legal and medical ethics but demonstrate our practical interest in a modern medico-legal reform, which is sadly needed, beside contribute towards harmonizing the mutual relationship which should exist between the professions of law and medicine.

DISCUSSION.

Mr. John I. Williamson: So many criticisms have been made, and so many different points have been suggested by the very vigorous paper to which we have listened, that it will be impossible to answer any of them fully, and many of them will have to be passed over unnoticed. However, the high standing of Dr. Punton and the commendable end he has in view justify, and his criticisms demand, that an appropriate response be attempted, and where the facts will justify it, a proper defense be presented.

If the legal profession is, indeed, what he has pictured it to be, and what very many other honest and learned men in other professions believe it to be, it merits wholesale condemnation and is in urgent need of reformation.

In the first place it may be well to note that lawyers always have evoked a large amount of criticism, and it is idle to hope that the time will ever come when this state of affairs will not exist. In every contested case there is at least one litigant who must lose. It frequently happens that his sole satisfaction in defeat, as well as his sole excuse for it, is to abuse the law, and slander the successful lawyer. Furthermore, it is one of the rarest things known for the ordinary newspaper to publish anything like a just or even a fairly intelligible report of a trial. In reporting evidence the newspapers are usually sufficiently full and reasonably accurate. In reporting discussions of law points and in the statements of the principles of law, however, it is perhaps too much to expect that a man utterly unlearned in law, as the average reporter is, will do otherwise than commit numerous and gross absurdities; thus it happens daily that in flaring headlines, sensational newspapers herald decisions which the courts never made, and announce pretended principles of law which, every lawyer understands, are contrary to the law, and which every man of sense recognizes as contrary to justice and common right; yet to the great mass of the readers these absurdities go uncontradicted, and by pure repetition are finally believed.

It also happens, no doubt, that both in civil and criminal cases there are many miscarriages of justice. The law in its administration is subject to all the weakness and infirmity of other schemes of human devising. It is beyond the wit of man to put any broad general principle into fixed and definite terms, and then apply it to the myriad of cases which come under its operation, without sometimes causing a hardship to arise even from the operation of a just and sensible rule. The cases where the rule reaches a result in accordance with justice and public opinion are rarely noted; but, if for any reason, justice fails, or public opinion is offended, then the press is loud in its denunciation of the technicalities of law and the rascality of lawyers. The truth is, and every man who is familiar with legal procedure knows it to be true, that the so-called legal technicalities are really rules devised for the furtherance of justice. They are rules, which in the great majority of cases do further

justice, and rules which the experience of hundreds of years, and the sound judgment of disinterested men, trained in the administration of the law, have approved as rules generally working good and not evil.

It is impossible to have a systematic and scientific code of procedure without fixed and definite rules. That unscrupulous lawyers representing unscrupulous litigants do sometimes wrest righteous rules to wrongful ends is beyond dispute; but the rules of law on the whole are based upon sound morality and good sense, and are effective and indispensable instruments in the administration of justice.

Referring to the second point urged in Dr. Punton's very able paper—insanity vs. responsibility—I beg to say that there must be some test to determine the question of insanity, and until the medical profession, whose peculiar business it is to study the operations of a mind diseased, can furnish us with a better guide than that already adopted, the legal profession, like the rest of the world, will be left to decide these matters by the simple inquiry as to whether or not the supposed lunatic is capable of distinguishing right from wrong, and of choosing to do the right rather than to do the wrong. Certainly a man who is unable to know the right, or even if able to know it, unable, by reason of some mental unsoundness, to do it, is in no such mental condition as justifies punishment. Punishment has no excuse except for the purpose of reforming the criminal, or for deterring others from committing a crime. It is difficult to see how one who is mentally incapable of knowing right, or of doing it, is to be reformed by punishment, and it is absurd to suppose that a man will be deterred from committing crime by punishments inflicted upon those who were known to be mentally incompetent to control their impulses.

In his discussion on the topic of "Nervousness and incipient insanity," Dr. Punton, naturally much influenced by his humane desire to cure, hungers for authority to give compulsory treatment. It is perfectly true that patients suffering from the various forms of mental disease, or from alcoholism or drug habits, cannot, as a rule, be compelled to surrender their liberty and be placed in custody, and subjected, against their will, to any sort of treatment, without first having been declared to be insane. This is altogether as it should be. What other rule can with safety be adopted? Is a man to be deprived of his liberty, isolated from his family and from his business, and be compelled to submit to the administration of powerful remedies merely because the attending physicians believe that he is in the first stages of some mental trouble which will likely degenerate into insanity? All that the law requires is that, in a fair and public trial, sufficient evidence shall be adduced to show that the subject of inquiry is not of sufficiently sound mind to be able to look after his own affairs. If he is not so, the court will take charge of his person and of his estate. Dr. Punton says, "rather than to submit to such imposition some persons justly refuse such a legal procedure often when they know by such refusal they injure their chance

of recovery." It would seem that one who is mentally capable of "justly refusing" to be declared a lunatic is also mentally capable of taking treatment which he may need without compulsion.

Referring to the legal aspects of medical evidence, it may be admitted at once that medical evidence is frequently received with suspicion by the courts, commented upon by the lawyers with derision and by the jurors disregarded; that this should be the case is unfortunate; but the character of the evidence itself is primarily responsible for the reception which it meets at the hands of the bench, the bar and the jury. In point of fact, we all know that medical evidence is uncertain. The best physicians are most prompt to admit this fact, and in private conversation will do so readily; yet in many instances when called upon the witness stand, a false professional pride, or a mistaken pride of opinion leads the medical witness to assert as certain that which daily human experience demonstrates is uncertain. The average physician, as a witness, labors under a good many disadvantages it is true. The inquiry usually takes a wide scope. Many questions arise which were not anticipated and he is called upon for an off-hand expression of opinion upon some minor, and it may be difficult, point of human anatomy or medical practice. The trouble seems to be that too many physicians would rather make an emphatic statement than to admit uncertainty or ignorance on the point involved. In addition to this, there are frequently no more violent partisans in the case than the physicians called on either side. They go upon the witness stand, as a rule, biased, it may be unconsciously in favor of the side calling them. A vigorous examination frequently develops more or less pugnacity, and in most instances a physician leaves a witness chair a thoroughly aroused, and sometimes a particularly vindictive partisan "for our side." Jurors see this and discount the physician's testimony on account of it. Lawyers know this tendency of human nature and play upon it; and many a physician who has given clear-cut and convincing testimony in his examination-in-chief permits his resentment, at what he regards as a useless or an impertinent cross-examination, to change his attitude from that of an impartial statement of scientific truths to that of an impatient advocate of a particular interest. To induce him to do this is one of the well-recognized methods of breaking down the force of a physician's testimony, and will frequently succeed when all else fails. The star expert thus leaving the stand somewhat frustrated and with his combativeness thoroughly aroused too frequently seats himself beside the attorney on his side, and proceeds to coach that attorney in his examination of the medical witness summoned by the other side. Thus we sometimes have the spectacle of one learned and discomfited scientist aiding in the discomfiture of a brother scientist no less learned. Is it any wonder that the twelve honest men in the jury box fail to distinguish between the legal advocates and the medical advocates?

The remedy for this state of affairs is in the hands of the physicians themselves. Personally I have never yet seen a physician go upon the witness stand and throughout his stay there conduct himself in an intelligent, dignified and impartial manner without being accorded thoroughly respectful treatment at the hands both of the court and of the attorneys. If such instances are rare, the explanation for their rarity is due from the medical and not from the legal profession.

There is a startling paragraph in the paper just read, upon crime as a business; and it is boldly asserted that certain lawyers form an alliance with the criminals "thus making convictions almost impossible." It so happens that jurors and not lawyers do the convicting. If a scoundrel is freed in the vast majority of instances, the responsibility for the miscarriage of justice lies with the men who decide the question, to-wit, the jurors, and not with the attorneys, who advocate either side of it. Rumor and sensationalism to the contrary notwithstanding, perjury does not often succeed. It is not an easy thing to tell the truth in all its bearings; but it is a much more difficult thing to tell an intelligible, connected and complicated lie. Furthermore there is, as a rule, in the average jury, an astounding capacity for determining what weight should be attached to the testimony of a witness—his manner, his language, his apparent bias, his interest in the case, the whole spirit and purpose of the man, are, as a rule, displayed before the jury in vivid colors, and though they may not be able to put their judgment into apt words, yet it is my belief that a jury is rarely deceived by a perjurer, and rarely fails to make proper allowance for the bias and prejudice of any given witness, medical or otherwise.

Every lawyer of any experience knows that he is reasonably certain to fail to win any case which must stand or fall upon the false statement of an unskillful liar. More emphatically than anywhere else on earth "honesty is the best policy" in the presence of the jury.

Complaint is also made of the fact that physicians who testify are criticised if they consent to accept more than the usual statutory witness fee. Dr. Punton asks "would the leading, most experienced, and able lawyers be willing to devote their time and talented services for a like compensation?" Well, the fact is, that they do do it. This also is right. Both physicians and lawyers as well as all other learned professions hold, and ought to hold a reasonable portion of their time and all their talent subject to the use of the state in the administration of justice.

The law is also criticised on account of its inadequacy and lack of science, and Mr. Eugene Ware is cited in support of the charge. In the quotation from Mr. Ware's remarks, the amazing statement is made, that "there has been no improvement in the law or in the practice in the last five thousand years." Speaking as Mr. Ware was, to a body

of lawyers, this remark was recognized as a pleasant jest. But this view of the statement seems not to have occurred to the essayist of the evening. Such a statement, if meant in sober earnest, is too preposterous for a moment's thought. Less than three hundred years ago one hundred and fifty different offenses against the law were punishable by death. Less than one hundred and fifty years ago a man on trial for his life was not permitted to be sworn as a witness in his own behalf; was not always confronted with the witness against him; and was not even permitted to have the assistance of a man learned in law defending himself against the gravest possible charges. Under this system in the reign of Henry the Eighth seventy thousand human beings were executed according to law in England alone. To say that there has been no improvement since those days is simply to shut one's eyes to the facts of every day experience; not only so but in the vastly more complicated affairs of modern life, questions of right and wrong arise daily of which our ancestors never heard; and yet the law is called upon to deal with them intelligently and justly, and in the main does so. The law is coming year by year to enforce with greater certainty and with greater uniformity the essentials of the moral law. And it is no idle boast to assert that outside the fields of purely material effort, no department of human activity has shown greater improvement than the administration of justice.

The time-honored criticism is also made that "the lawyer who knowingly strives to get for his client a lighter punishment or a heavier judgment than he (the lawyer) believes he (the client) deserves * * * cannot successfully defend his conduct at the bar of good morals." This criticism is based upon a strange misconception of the functions of a lawyer. It makes the standard of justice depend altogether upon what the lawyer believes. It usurps the functions of the judge and jury, and imposes upon the attorney, as a moral duty, the vast responsibility of determining in advance of trial, and upon a hearing of one side only, without the sanction of an oath or benefits of cross-examination, the judgment which should be rendered, or the punishment which should be meted out in any given case. It is difficult enough to tell what justice requires to be done when both sides have had a full opportunity to be heard publicly and exhaustively with a disinterested judge to lay down the law and disinterested jurors to decide the facts.

The experience of centuries has shown that justice is best subserved and truth most commonly ascertained when each side is permitted to bring forward in its own support every fact and every principle of law which the learning, the industry and ingenuity of counsel can suggest, and then to submit these questions of law and of fact to an impartial judge and an honest jury. The lawyer's business is to advocate—to advocate his client's cause by every honest means within his power. The lawyer

who does more than this is a scoundrel and ought to be disbarred. The lawyer who does less, is incompetent or a coward and is no less worthy of disbarment.

It seems to be assumed that it is a simple thing to ascertain the truth. It seems to be taken for granted that in every contested case the lawyers on one side or the other know at all times that one side is right and the other side is wrong. Nothing is further from the truth. No task set for mortal mind is harder than to untangle from a complicated state of affairs "the golden thread of truth."

"What is truth?" said Pilate when Christ stood at the bar of his court. And he, who spake as never man spake returned no answer. The best that human devising can do is to slowly, patiently and laboriously—and oftentimes it may be inaccurately—approximate the truth. He who criticises the law's delays, sometimes criticises with reason; yet nothing is so sure a cover for rascality as undue speed. Many a man has lost his fortune or his life at the hands of the law as well as at the hands of a mob merely because the impatience of men would not suffer the delay necessary to ascertain the truth. Speed is a good thing, but justice is a better.

That there should be a better understanding between the two learned professions than now exists goes without saying. That they should co-operate in those particularly difficult fields in which they sometimes meet along the hazy borderland of insanity, there can be no question; and right thinking lawyers, not less than doctors, will hail with joy the coming of the time when the learning of the medical profession can be brought to shed a brighter and steadier light upon questions of jurisprudence. That improvements will be made along these lines is altogether certain; that the working out of any scheme of improvement will be attended by doubts and difficulties is equally certain; but that both law and medicine are becoming daily better, surer and more accurate servants of humanity there is no doubt. On the whole there never was on earth a time when the law was so humane as today; never a period when the rights of man were better understood, better guarded, more highly respected or more uniformly enforced than today. In the battle of life the weak stand a better chance today than ever before. The disparity between the rich and the poor is less in the courts of law today than at any time in the past. The judiciary as a whole is more learned, more earnest, more honest and more diligent than ever before in the history of the race. The right to life, liberty, property and the pursuit of happiness never had so many warm advocates, nor so many weapons of offense and of defense ready at its grasp as it has today; and to this state of affairs the legal profession has contributed its full part. Lawyers have preserved, and perpetuated by their laws, what soldiers have won on a thousand battle fields; and every battle fought for liberty would

have been useless bloodshed, had not the principles of freedom and justice thus vindicated been crystalized into the written law. Save one, there is no nobler profession, and save one, there is none which is more highly regarded, more sincerely revered than is the profession of law by the lawyers themselves. Lawyers of the better sort are the sworn ministers of justice, and so regard themselves.

This feeling found expression from the pen of Justice Bleckley in an apostrophe to the law, when he retired from the Supreme Bench of the State of Georgia, after more than twenty years of service there; and every lawyer, after an honorable career in the practice of his profession, who retires from its activities, voices with equal fervor and with equal regret Judge Bleckley's lines:

"My grand, majestic mistress, viceregent here of God,
I quit thy special service, but stay beneath thy rod
An old and humble servant, uncovered and unshod."

ART OF PRESCRIBING.*

BY J. C. MATTHEWS, M. D., SPRINGFIELD, MO.

Somewhere back in the forgotten past, primitive man, in seeking relief from the ills to which flesh is heir, originated the prescription; in what manner and under what circumstances we can only conjecture.

From the oldest records we find that medicine and religion were united under the priest-hood, so it is not difficult to imagine that the first treatment of the sick by the priest took the form of prayers and incantations, accompanied by the blowing of horns and ringing of bells. In fact, such is the treatment practiced by the savage people of the world at the present time. And some of the people of this country, who would feel morally offended if we should refer to them as savages, still attempt to heal physical ills by spiritual means.

Thus primeval man came to the priest or medicine man, seeking relief from his physical suffering and made of this a form of worship, which was oftentimes elaborated by the priest into a religious system, in which they taught the people that sickness and suffering were afflictions sent on them by the gods and spirits, and that relief might be obtained by doing penance and making atonement to the supernatural powers and rendering homage to the priest. So it is but natural to suppose that priests, having abundant opportunity of seeing sickness in its various forms, were the first prescribers for its relief in anything like a systematic way.

The first prescriptions no doubt consisted of prayers, rendered to the gods, and various nauseous mixtures given to the patient, and the more nauseous the better, as these mixtures were believed to aid in expelling the evil spirit. As all diseases were at one time thought to be the result of evil spirits or demons in the human body, the patient perchance, was given a compound of balsams, aromatics and spices for the reason that these were burned in the temples to attract the attention of the gods, it being believed that their olfactory organs were especially partial to the pleasant aroma arising from the burning incense.

So it is likely, in fact written records confirm the conjecture, that from nauseous drugs, because they were believed to be obnoxious to evil spirits, and from aromatic preparations, because they were thought to be favored of the gods, the first pharmaceutical remedies were prepared and given to the sick by the priest, who at the same time invoked, by prayers and incantations, the aid of the higher powers to direct the medicine so that it would ease and heal the afflicted.

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And the priest, after a time, noted that certain remedies in certain conditions seemingly always produced the same result, such as sweating, vomiting and purging, ease of pain, etc. It being observed that through the use of these remedies many recovered more promptly from their ailments, a written record was made setting forth the form, manner and conditions in which these remedies were used; and here was laid the foundation of scientific medicine and the art of prescribing.

It is said that the oldest written prescriptions in existence are papyrus rolls preserved in the Berlin museum. They were taken from tombs of the second dynasty of Egypt, and in form are somewhat like those of modern times. They recommend the milk of different animals, salt, vinegar, honey, lard and ammonia, etc., for internal administration, and plasters and raw flesh for external applications, and the prayer and supplication to be rendered to Osiris.

Thus we see that the prescription is a legacy handed down to the medical profession from the time when superstition and medicine were united under the head of religion.

But as medicine advanced, which it did slowly for ages, and as its truths and principles were better understood, it gradually left behind, one by one, the superstitions that bound it to religion and held it back. Finally freeing itself from the dogmas and superstitions that were tramping and retarding its progress it has rapidly advanced until now it is one of the leading sciences of this age.

Religion yet burns incense in the temples of superstition; but medicine advancing and seeking the light of truth retains nothing of its priestly origin except the sign of Jupiter which comes from the age of Falic worship, and is now the superscription of our written prescription. The ability to write a prescription in classical Latin with its superscription, basis, adjuvants, correctives, vehicles and subscription, all properly and correctly arranged, with due regard to dosage, synergists and incompatibles, however much to be desired, does not embody the whole of the art of prescribing by any means, but is only a part of it.

The art of prescribing consists in the ability to employ rational and scientific means to an end. It is immaterial whether these means come through a written prescription, a verbal order, or are applied by the physician himself, so long as they follow knowledge and good sense.

Hippocrates, the first recognized master of rational prescribing, laid down the rule that most cases of sickness treated by limited diet, rest, purging and hot teas would recover. And what was true in his day is true now. But we of the present time seek to be more specific in the application of remedies. Along with rest, dieting, etc., we seek to find a specific cure or preventive, and our success on these lines has been wonderful. And in the ability to apply a specific in any dis-

ease or a preventive consists the true art of prescribing; but between the art and absurdities of prescribing there are many intermediate forms. And someone in the past, taking knowledge of the absurdities practiced by some members of the medical fraternity, has said, "that the practice of medicine is the pouring of drugs of which we know but little into a body of which we know less," and in reviewing the method of some physicians, whose time of life and place of residence would entitle them to membership in this society, we realize only too well the correctness of the above definition. Now let us compare some of the absurdities of the past with a few of the present. Some of the absurd things of the past were, a wolf's head, an ax, or a tub of water under the bed for night sweats; pole-cat oil for membranous croup; tying knots in cords to remove warts, wearing of strings and charms around the neck for nose bleed; carrying buckeyes and potatoes for rheumatism; three drops of blood from the end of a black cat's tail for shingles; cutting open live chickens and binding them to the feet for croup; dilation of the os uteri for spitting of blood, on the theory that the os being closed the blood could not escape, but was backing up the fallopian tubes and over-flowing into the bronchial tubes. Mistletoe was used by the Druids to aid in conception, though drugs having an opposite effect are much sought for by the laity in this age. These, as we have just said, are some of the absurd things of the past, and some of them not so very far past either. Now let us glance at a few absurdities as practiced by physicians of more recent date. Here is one, a beautiful example of polypharmacy:

Iodoformun	2
Chloral Hyd.	
F. E. Gelsem.....	
F. E. Blk. Cohosh.....aa	.6
Citrate Bis.	4.
Caffeine et Natrum Sal.....	
Phenacetine	
Antipyrine	
Salol	aa 3.
Podophyllin .....	.5
Pilocarpine .....	.1
Tr. Nux Vomica.....	
Tr. Opîi	aa .6
Red wine	
Spr. Yerba Santa.....aa	q. s. ad 150.

M. S. Teaspoonful every four hours.

Gentlemen, this is no fairy story, but a bona fide prescription used in practice by a physician of this state, a graduate of a German university.

Another absurdity is for a physician to load his patient down with prescriptions, and at his next visit set these aside and give a new lot,

so that before he is through with the case he has sampled most of the official drugs and some that are not official.

Now as unscientific and absurd as are these old time remedies, and more modern prescriptions and methods, are they any more so than things of which we are guilty every day? We prescribe proprietary medicines, whose formulae remind us of the prescription cited above, and often the reasons for prescribing these are just as logical as were the reasons for the use of the remedies of the ancients cited above. We prescribe proprietary remedies of which we know nothing, as a rule, as to strength, composition or honesty of construction, not because we know them to be time proved and scientifically tested remedies, but because of wonderful advertisements and glib-tongued detail men. We as professional men who claim to stand in the fore-ranks of scientific application of sanitation and public health, have, I am ashamed to say, shown that we are as susceptible to the advertisements of the proprietary remedies as the laity is to that of the patent medicines. About the only difference between proprietary remedies of a certain class, and patent medicines is that one is advertised direct to the public, and the other accomplishes the same purpose through the medical journals and detailing the physician, and thereby saves money. A physician by the use of proprietaries shows his laziness or ignorance and acknowledges his inability to prescribe rationally for the conditions confronting him. Where there is a specific let him use it, and if there are none let him use the official preparations that are most nearly indicated by the symptoms of the case.

Why study *materia medica* if we are going to use "hand me down" remedies, guaranteed to fit all conditions of the human system—and cure all diseases—remedies made by someone who generally knows less of drugs than we, and who would not recognize the diseases for which he recommends his nostrums, if he met them in the road, and who never saw the patient? Some proprietaries may have virtue, but when our patients get critically ill we generally go back to first principles and prescribe simple drugs and remedies of which we have some knowledge, such as are official in the U. S. Pharmacopœia, and National Formulary, or are magisterial, and of their action we know from experience. When these are properly compounded they are not to be excelled by any remedy, extolled by a person with no other interest at heart except that of commercialism; so why not commence, and continue, as we are likely to end, by using remedies of which we know something.

The official preparations of the pharmacopœia have been tested by time and experience, and will be used as medicine so long as medicine is practiced.

A physician who thoroughly understands the action of ten or twelve official remedies is better equipped to practice and is a safer physician than if he had all the proprietaries in the world at hand. By proprietaries we do not mean official pharmaceuticals compounded and

put on the market by reputable firms; but we mean remedies in which the right to manufacture is vested in an individual or firm, the ingredients of which, manner of compounding, amounts of drug in compounds, are unknown to us, or the name copy-righted. It is just as sensible to read an almanac and prescribe the patent preparations it recommends as it is to prescribe many of the proprietary remedies. And we would suggest when a detail man calls at your office and begins to talk to you of a remedy of which his house is the sole owner, and no one else has the formula or right to compound and that it is a certain cure, that you gently but firmly inform him that this is your busy day.

A physician who has a proper understanding of physiologic and therapeutic actions of drugs will make his prescriptions few and simple. He does not need the advice of a proprietary house as to what remedies to use, and he should never so forget himself as to prescribe a proprietary the ingredients of which he knows nothing, but will give the remedy that his knowledge and experience teaches him is indicated, with its adjuvants and correctives, in a suitable vehicle or form.

It is our duty to administer medicine in as palatable a form as possible. The giving of remedies in a pleasant form is a thing that we should study more, for it is our duty as physicians to make our patients as comfortable as possible, and not inflict on them a lot of foul-smelling, ill-tasting things that we ourselves would not take, and would discharge a physician for giving them to us.

Another thing of more importance than the palatability of remedies is to know that they are compounded and dispensed by a competent, reputable and conscientious pharmacist, of the best drugs to be had. Many a doctor has lost both patients and reputation through a dishonest druggist who used inferior drugs, substituted, or did not compound properly.

All prescriptions containing such drugs as opium, chloral, cocaine, etc., to which the patient might become habituated, should have written on them, "not to be refilled, nor a copy given."

To get the quick effect of such drugs as digitalin, strychnine, morphine, atropine, cocaine, etc., give them dissolved in as little water as possible; $\frac{1}{4}$ grain of morphine given in 10 drops of water, and not followed by fluids of any kind for ten minutes, will never reach the stomach, but will be absorbed from the mucous surfaces of the mouth and esophagus and have almost as quick an effect as it would if given hypodermically, while the same remedy given in an ounce or two of water will not have an effect until the water is absorbed into the system, and if the stomach is not acting it will have no effect at all.

Over-prescribing is to be avoided. Do not give eight ounces when one ounce is all that is necessary. Allow for the limitation of diseases and change of symptoms, and give as near as can be judged the amount of medicine needed. In acute cases just enough medicine to last until the next visit is sometimes good policy.

In the giving of directions we should be as brief and plain as possible, saying just what we mean and no more. When we mean a teaspoonful in water every two hours, let us say so—not a little of this or that, on something or other every now and then, or semi-occasionally. Our patients will respect us more for being explicit, and have more confidence in our ability, for plain directions show that we have a definite object in view and are seeking to attain it.

The directions for food and drink should be just as explicit and plain as those for medicine. We should say just exactly what the patient should eat and drink, when and how much. If we say in a careless way, "Oh, a little of most anything whenever he wants it," the patient is liable to overdo the matter; then we are blamed if he should have a relapse. Leave as little as possible to the desires and wishes of the sick, for their appetites and cravings are not founded upon reason and experience guided by a properly trained judgment.

Give the laity to understand that drugs are not the only remedies on which the regular physician relies. Too long they have been allowed to believe that the physician's knowledge of remedial agents is limited to a few powders and tinctures. Many cases do not need drugs and we should tell them so and as true physicians recommend the remedy that is suited to the case.

Teach the public that the medical profession recognizes the benefits to be derived from such things as food, drink, occupation, rest, electricity, sanitation, physical exercise, hydrotherapy, massage, suggestion, etc., and that he has a thorough knowledge of these things as remedies, they having been used by physicians in the treatment of diseases since such a thing as treatment of disease was known.

If we would pay a little more attention to these things and use them in their proper places, letting the laity know that these are remedies and means of treating diseases that belong to the regular physician, and that regular practice of medicine embraces within its system all rational means of easing pain and curing disease, we would strike a hard blow at charlatanism, quackery and frauds, for it would be recognized at once that what little of truth these irregular systems may have was stolen from the old school of medicine.

Medicine is a progressive science founded upon a knowledge of the laws of health, the human body and mind. And the art of applying remedial agents, governed by experience and judgment and a willingness to use any and all rational and scientific means for the relief of pain and the cure of disease, marks the difference between the broad and scientific system of medicine, and all others.

"We, who are to no creed or dogma bound,

"Seize the truth wherever found,

"Be it on Christian or heathen ground."

PERSONAL EXPERIENCES IN THE REMOVAL OF URETERAL CALCULI.*

WILLARD BARTLETT, M. D., OF ST. LOUIS.

These concretions may exist alone or associated with similar bodies in the kidneys. In the four instances about to be described I removed calculi from the pelvic portion of the ureter, and in one case took a stone out of the kidney on the same side; in another did this for the opposite kidney.

Without doubt these little bodies usually originate in the pelvis of the kidney and proceed downward until they are arrested in this or that portion of the ureter, in very much the same way that the larger per cent of gall stones are ordinarily formed in the gall bladder; and at some time or other in their life history gain access to the efferent ducts.

I shall especially call attention to the fact that this malady is far from uncommon. A decidedly larger number of patients carry a stone in the ureter than ordinary clinical methods would lead us to suppose. This is evidenced by the fact that such individuals have usually gone the rounds before a correct diagnosis is established. The four to whom I shall refer to-day had all been treated, and one of them operated upon, for conditions other than that which proved to be of primary importance. Naturally the key to the situation is the intelligent use of the x ray as an aid to diagnosis.

I am convinced, as is Dr. Carman, who has done this work for me and whose paper follows mine, that a proper technic will show when there are stones in the ureter, and I am sure that my claim will not seem exaggerated when I state that one of my patients was an extremely fat woman in whose pelvis a stone no larger than a number six shot was demonstrated, and later found on the operating table.

In some of my cases the urine analysis has been of very little diagnostic aid, while in one, a man with a stone in the left ureter, the factor of pain was particularly misleading, since, being on the right side, it led to the removal of his appendix, an operation which was of absolutely no benefit.

The reason for removing these tiny bodies is that they are likely to lead to a damming back of the urine above, with consequent dilatation and serious infection of the pelvis of the kidney, a pathologic sequence which is too well known in connection with other maladies to necessitate a detailed consideration here.

In operating upon these four patients during the last year I have developed a routine procedure which has proven exceedingly simple and highly satisfactory. As a matter of course the subject can be regarded as relatively new, depending as it does upon the recent introduction of the x ray for the detection of these bodies, and it is, therefore, not to be

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1908.

wondered at that the various authors who have written on it should still differ as to just the best method of procedure in a given case.

Some of the proposals which have contemplated removal of these concrements would make it seem a difficult, if not sometimes a dangerous procedure. I am able to state, as a result of my experience, that stones of moderate size lying anywhere in the pelvic portion of the tube, are very easily found and extracted, in the following manner:

1. An incision is made parallel to the external border of the rectus muscle extending from the semilunar fold of Douglass to the pubis. This goes down to the peritoneum, which is not opened but gently pushed toward the middle line, the hand of the operator keeping as close as possible to this membrane, which will drag the ureter into the wound, so intimate is the attachment between them. I never found it necessary to use a single hemostatic forceps or retractor in following the line of cleavage which leads straight to it, and in this way exposes it from the brim of the pelvis to the bladder.

2. With the tube between the thumb and first finger of the left hand, it is a perfectly simple matter to follow its entire pelvic course, and thus locate a stone imbedded in it. In fact, I have accomplished this in a patient who was so fat that I could not at any time see any portion of the tube lying at the bottom of a deep wound; in general, I rely very little on the sense of sight in this connection.

3. The stone is tightly held between the thumb and first finger of the left hand, the wall of the ureter, which is stretched over the same, is nicked with the point of a sharp knife, and the stone squeezed through the tiny opening which stretches to accommodate its passage. The first time this is done the operator will be astonished at the ease with which the stone finds its way out of its resting place into the grasp of the thumb and finger above mentioned, it not being necessary to introduce the right hand or any grasping instrument into the wound. (In three of my cases it took less than ten minutes to accomplish this. In the fourth the operation was somewhat longer on account of delay in locating a very small calculus.)

4. No stitches are taken in the ureter. In fact, the tiny wound is never seen at all. A fine cigarette drain is carried down to the vicinity and the abdomen closed except at the lower angle.

It may surprise one who favors a more complicated method to note that the odor of urine has never been detected on the dressings of any one of my four patients, though the stones removed have varied in size from a number six shot to the smallest marble. The drain has always been removed on the fifth or sixth day, the healing has been complete a few days later, and all of the patients have been up and perfectly well within two weeks.

This method makes possible three most desirable objects, viz., the use of a small abdominal incision, since the work is performed by the aid of touch alone; a minimum of injury to the ureter, since the stone

is squeezed through an opening smaller than itself; a short, simple operation, since no closure of the tiny ureteral wound is required.

Case No. 1. Mr. F., forty-five years of age, a railroad conductor by occupation, had suffered for about five years with an indefinite abdominal trouble prior to 1902, in June of which year I removed his appendix. This was done after consultation with competent observers for what seemed to be chronic disease of this little member. After this he gradually improved for a year, when he remained pretty well for a second year but then his old-time symptoms returned and for the next two years he was never free from a dull, constant pain, low down in the right abdomen. This was constant unless he remained perfectly quiet. There was a great deal of digestive trouble; food oppressed him and he vomited occasionally. Months of strict diet did not benefit him, nor did a rest cure or change of climate. The urine showed a very small amount of blood and pus. In April, 1906, Dr. Carman located a small stone low down in the left ureter, and a few days later this was removed in the manner above described. The patient made a perfectly uneventful recovery and has remained free from his former symptoms up to the present time.

Case No. 2. Mrs. B., forty-one years of age, was first seen by me on November 17th of last year. She had been suffering from distinct colicky attacks of pain in the abdomen since the April previous. This had been more pronounced in the left side, and darted down toward the pubis. The only trouble she had ever had with the urine was that it would suddenly stop at intervals in a manner which she could not understand. There had been one particularly severe attack of colic about three weeks before I saw her, and for a number of hours she was totally unable to pass any urine. Urinalysis, frequently repeated, showed nothing but a little albumen. She was sent to Dr. Carman, who discovered a small stone in the pelvic portion of the left ureter. This was removed in less than ten minutes, although she was an exceedingly fat woman, and the procedure was rewarded by an immediate subsidence of all the manifestations which had formerly been noted. She, too, has remained perfectly well until now.

Case No. 3. Mr. H., forty-four years of age, a druggist, had been sick for three years with indefinite pain all through the abdomen, when he came to me last October. Fourteen months before he had commenced to experience typical attacks of renal colic in the left side. These were exceedingly severe and usually followed by blood in the urine. Urinalysis showed all sorts of crystals, blood, pus and an acid reaction. Dr. Carman demonstrated with the x ray a solitary stone in the left kidney, and a very small one low in the right ureter. On October 27th, the left kidney was brought to the surface, incised through its cortex, the stone removed and the incision in the viscus sewn up with catgut. Then at the same sitting the stone was taken from the right ureter in the manner described above. There was never any leak from either wound, the

patient recovered rapidly and has been perfectly well ever since. He has gained greatly in weight and expresses himself as being the happiest of men.

Case No. 4. Mr. M., sixty-two years of age, a merchant, presented himself in February of this year with a history of having suffered twenty-four years from colic. He had thought nothing of this until about a year ago when it became so severe in the right side that he was unable to endure it longer. His pain was greatest in the right flank and thigh. It would exist for several days at a time, and then disappear for a similar period. His urine contained blood and pus and was of an acid reaction. Dr. Carman's x ray picture showed a stone in the right kidney and another in the pelvic portion of the right ureter. The kidney was treated in exactly the same way as in case No. 3, and a separate incision made for the stone in the ureter, as outlined above. For a time there was leakage of urine from the kidney wound, but never any from that in the ureter. The patient was out of bed in a couple of weeks and in a letter received from him a few days ago he states he has never been in better health.

It will be noted from these four histories that a wide range of symptoms are possible where a stone exists in the ureter. My experience leads me to believe that a diagnosis is usually difficult, and even impossible, with the clinical means usually at hand. I would therefore venture to draw from my cases the one very important lesson, that all patients presenting obscure abdominal symptoms which cannot be explained in any other way, should be x rayed for a stone in the ureter, especially if there be microscopic evidences of blood or pus in the urine.

DISCUSSION.

Dr. M. G. Seelig, of St. Louis: It would probably be not an exaggeration to say that the x ray is not only of inestimable value to the surgeon from the diagnostic point of view, but that the value is even more incalculable than the term inestimable connotes. Yet, even granting the great value of the x ray, we must not be unmindful of the fact that the value of the x ray lies not so much in the finished plate that lies before the surgeon and the roentgenologist, as it does in the interpretation of that plate. Therefore, when we say that the x ray is invaluable, we mean to imply that the counsel of the man who takes that plate and who is best fitted and calculated to interpret that plate, is the invaluable factor in x ray work. It is well known that there are many factors of error that enter into the interpretation of an x ray plate. I purposely avoid mentioning them, because the subject will be taken up here later in the day, and I feel that I should be intrenching on the domain of the reader of that paper, but the fact remains that it lies in the power of the expert x ray man, the thoughtful x ray man, rather than in the domain of the surgeon himself, who has of necessity less experience than the x ray man in interpreting these plates.

These remarks are apropos of a case of my own, operated on some ten weeks ago, which illustrates the great difficulty which hems in this work on all sides. A young woman came with a history of typical renal disease. Suffice it to say that her pain was intense, radiating along the ureter; blood in the urine, and an obstruction in the ureter about three inches from the bladder, as manifested by the inability of an expert cystoscopist to pass the catheter. An x ray picture was taken, and disclosed a typical shadow of a ureteral stone, typical in shape, contour and situation. In order to be on the safe side, the patient's pelvis was photographed five distinct times, and each time there came confirmation of the original picture. The only suspicion that was aroused in the mind of Dr. Carman, who did the work for me, was based on the fact that in one of the plates the stone appeared somewhat higher than in the others, immediately suggesting to his mind that there was an element of uncertainty in interpreting the plate. That woman's ureter I exposed extraperitoneally from the pelvis of the kidney down to the bladder, and found absolutely no evidence of a stone, after manipulating the ureter for some five or ten minutes. (The exposure was accomplished with exactly the ease that Dr. Bartlett outlined). Before closing up the wound, however, I decided that between the unopened leaves of the peritoneum I would explore as far as I could in the peritoneal cavity; and it was rather remarkable to me with what ease I could pick up the tube and the ovary and various intestinal loops, in spite of the fact that the parietal peritoneum was intact. I picked up the appendix, and in palpating it came upon a small dense stone. I then opened the peritoneal cavity, and found the appendix adherent to the ureter. The stone lay directly over the ureter, which accounts for the reproduction of it on the plate. There only remained to be accounted for in the clinical history evidences of blood that we got in the urine, and I find that there have been two or three papers written, describing a toxic hematuria, due to appendicitis, but the symptom complex has not received the attention in general that it merits.

It happened that in the course of six weeks I had three cases, in all of which I suspected kidney disease, and in all of which there was an outspoken appendiceal disease, and no renal disease. After the operation on my case, Dr. Carman was kind enough to show to me an obscure German journal, in which there was an article by a German surgeon, who was advocating the establishment of the diagnosis of appendicitis by the x ray, and he reproduced some very beautiful pictures of coproliths in the appendix, as shown in x ray photographs.

The case, of course, is an interesting one. In fact, I believe it is the first case to be reported of an appendix stone simulating in its entirety the picture of a ureteral stone. The obstruction to the ureteral catheter was due to the fact that the ureter was kinked at the spot where the appendix was adherent to it.

Dr. Roberts, of Kansas City: I have been very much interested in

the paper and the remarks, and I just merely want to emphasize some of the points that have been brought out. I want to first ask the essayist the location of the stones he referred to.

Dr. Bartlett: The pelvic portion, close to the bladder.

Dr. Roberts: Was the attempt made through the ureters into the bladder?

Dr. Bartlett: No.

Dr. Roberts: I was surprised the first time I ever attempted to remove a stone in this way, at the great ease with which you could deflect the peritoneum, and stay outside of that cavity. Some have said that it would be impossible to do. Just as it has been brought out here, it is a very easy operation if proper care is used and I was very much surprised the first time I attempted it.

In regard to the urine. I know I watched the first patient on whom I attempted this operation, I have tried it in only three other cases. I was afraid of the urine, but just as the essayist says in his paper, there was absolutely no trouble in that connection whatever. I left my drainage in for four or five days. One little point in regard to one of these cases on which I operated. I found the stone in the same location the essayist speaks of, and I found three other stones just above the ureteral opening into the bladder. They had passed down there some time previously, had ulcerated their way through the ureter, and were lodged just outside of the bladder; I removed those stones also. My patient got up without any complication or trouble whatever. I think this method will open up a new field of work. It has been very satisfactory to me, and I have done some vesical work in the same way, that has been very satisfactory also.

SOME REFLECTIONS CONCERNING THE GENERAL PRACTITIONER.*

BY J. ROBT. BUCHANAN, M. D., OF NEVADA, MO.

If I were called upon to describe the most important personage in the average community, I would unhesitatingly turn my attention to the character and qualities of what I conceive to be a model general practitioner of medicine and surgery; and that I may present such an individual to your attention today, I beg your indulgence for a short period of time.

What is a general practitioner? In what way, or ways, is he distinguished from others of his profession? Let us see; this man is in many ways synonymous with the old-time "country doctor," so beautifully and correctly depicted by Ian MacLaren in his masterful and pathetic book, "Beside the Bonnie Briar Bush."

The general practitioner is a factor found in every community. His habitat is not limited to the isolated country district, but as well is he found in the thriving village, in the prosperous and growing town, and in the bustling and active city.

It was thought at one time, and but a few years ago, that the general practitioner was destined soon to be a character of the past; that the rapid subdivision of medicine and surgery into specialties had sounded his death-knell,—but not so,—he has quietly, gently and firmly pursued the even tenor of his way and has grown and multiplied in the midst of the hot-house soil of the specialist, proving again the old proposition that what the public needs they will nurture and preserve. In the very essence of the case the general practitioner becomes a necessity.

The old adage that "a jack of all trades is good for none" is in no way applicable to him.

Necessarily the general practitioner must be a versatile man. He must be a man of parts, a man of intellect, a man of conscience, a man of heart, one schooled in the finer sensibilities of his kind, a man of courage, a resourceful man, a God-fearing and a man-loving man.

These are some of the characteristics that must enter into the foundation structure of his make-up. The greater number of these he possesses, and the more marked in degree they are, the grander and more successful will be the superstructure built upon them.

To be a successful general practitioner it is necessary that he should in the first place be a student, not only of books, but of men. He should have a mind well stored with the fundamental facts of medicine in all its branches. This becomes necessary as a basis upon which to construct his future building.

He should be, and is, a close student of medical literature, keeping himself abreast of his rapidly progressive profession. He should be conversant with the latest and most efficient means of diagnosis.

*Read at the Fiftieth Annual Meeting, Jefferson City, May, 1908.

He should have an eye, an ear and a touch acutely attuned to the observance of signs and symptoms of disease.

He should have judgment, quick and strong, and positive to correlate these signs and symptoms and formulate a correct diagnosis.

He should be able to take this first and most important step in the interest of his patients, to definitely and correctly determine the character of the existing disease.

There is, in the mind of the general practitioner, no more important matter to engage his attention than that which meets him on the very threshold of his work,—to-wit, a correct diagnosis. He must fully appreciate the great importance of this duty. He is not satisfied with a partial or incomplete examination. He must know the reasons for this deflection from the normal standard. He fully realizes that upon a correct understanding of this matter depends all his future success in benefiting his patient. He may not be able on the first or even the second examination, to correctly determine this question, but he is persistent, painstaking, assiduous in prosecuting his investigations, and is only satisfied when he is able to announce a definite and correct diagnosis.

This matter satisfactorily determined, he is now able to turn his attention to the next, and but little less important matter; that of a thorough investigation of the individual character, temperament and personal traits, as well as the family history of his patient.

This to the general practitioner becomes a very important matter, and from years of practical experience he has learned that all these elements play a very important part in the result.

He understands that each case is a law unto itself; and to know the patient often becomes equally important to a knowledge of the disease. In making up his inventory of the patient he exhibits his acute knowledge of men, learned by years of close observation.

With a definite knowledge of the disease and a correct estimate of the personality of his patient, he is now ready for the next step, an observance and appreciation of his environments. This to the general practitioner often becomes a matter of the most profound concern. He well knows that this element will tell with powerful influence for good or evil upon his patient. All other elements under his complete control, this one thing may defeat his best directed efforts. As a matter of professional interest to himself, and of vital interest to his patient, he has long since come to view this matter as being of paramount importance. Consequently he never rests until he has placed his patient in the most favorable surroundings possible under the circumstances.

With a correct diagnosis, a full knowledge of the personal equation and, as far as possible, control of the environments of his patient, he now approaches that duty, which to the public seems of more importance than all others, and upon which he must bestow much thought and draw largely from his stock of knowledge and past experience.

He now stands face to face with the question of treatment, a question often as complex and diversified as the leaves of the forest; one

teacher calling "lo here" and another authority saying "lo there;" one school advocating this method of treatment and another school that; one eminent authority asserting with dogmatic precision that this remedy only is applicable, and another equally eminent authority declaring that another remedy is the one *par excellence*; one authority declaring without hesitation or limitation that the disease under consideration is a self-limited disease, that it must run a given course, and last a definite length of time, and that no form of treatment will appreciably modify or cut short its course, while another writer more modest, more diffident, but after extended personal observation, may mildly suggest that it is possible, yes, even probable, that another form of treatment may not only arrest, but even abort the disease in question. What will be the predicament of a timid, vacillating, weak-minded man, in the midst of this maelstrom of doubt and uncertainty? He is lost, irrevocably lost.

Now steps upon the stage our robust, level-headed, thoughtful, accomplished, general practitioner. He who has long since become familiar with the dogmatic teachings of our upper garret authors, men who can and have written books from a purely theoretical standpoint, with possibly no practical knowledge of the subject upon which they have written.

Knowing full well that even the most astute and learned among our authors frequently essay to write upon subjects about which they are not fully informed, from a practical view point; knowing that an author's well-earned reputation, as regards some subjects, has given him such a hold upon the profession that they are readily inclined to acknowledge him an authority on all subjects, when in fact his knowledge is very limited except along the lines of his specialty; now comes our general practitioner, he who has learned self-reliance, he who has exercised his powers of observation and added to his stock of knowledge, gained primarily from his college studies, and largely enhanced by a wide scope of reading, that broader and deeper and more enduring knowledge obtained from a close application of his mind to the facts that constantly present themselves during years of active practice.

He comes not with egotism, not with the idea that he now knows it all, but modestly, quietly, gently, with the mind of the student of nature, with all his faculties on the alert, with only one object in view, the relief of the sufferer, realizing the importance of every step that has been previously outlined, and from force of habit relying upon his own powers of observation and his experiences in practice, and believing in his inherent right to depart from the routine practice of his predecessors, whenever his judgment so dictates.

He comes, and in his decision he is not unduly swayed by the teachings of this author, nor by the theories of that one, but brings to bear every power of his mind upon his case, and as a result he is usually able to bring order out of chaos,—to arrive at a correct diagnosis, and to outline a rational plan of treatment.

Do not understand me to say that this model general practitioner that I am presenting to you, is an always self-sufficient man, that he

feels himself under all circumstances, competent to diagnose or treat all patients that may come under his care. Far from it. While he feels it his duty to first make a thorough investigation of his case, and if possible make his own diagnosis, still his good sense, his judgment frequently tells him that he alone is not equal to the task.

If he should be able to satisfactorily and correctly diagnose his case, his judgment again comes to his relief and tells him that his practical experience with this class of cases does not justify his effort to treat the case alone. He is not the kind of man to decry the specialist, but by virtue of his matured and educated observation he readily admits that the assistance of a specialist is a thing greatly to be desired in given cases.

What better combination of talent can be imagined in the interest of the patient than such a general practitioner and an expert specialist with a wide experience along the lines of his specialty.

To no class of men does the experiences of life so often bring the necessity for their self-sufficiency. So often is it true that the general practitioner is so situated that because of distance or limited time he is entirely isolated from all classes of specialists, and however much he might want, or need, their assistance, he is nevertheless deprived of it.

In cases of this kind he must of necessity be physician, surgeon, obstetrician, dentist, oculist, etc., and who will say that after years of this varied practice he has not become a veritable walking encyclopedia of general medical knowledge. Who will assert that a man with an experience of this character is not a safe and competent practitioner in all departments of his profession, except possibly, in the execution of the finer and more delicate operations of surgery!

Has it ever occurred to you to compare the work done by this class of general practitioners with that done along the same lines by some of our most eminent specialists? Possibly not, for the reason that as a rule you never hear of the cases treated by the general practitioner, while you often have the most minute description of the cases treated by the specialist. I do not say this in censure of the specialist, but rather in criticism of the general practitioner, that he does not give the profession the benefit of his experiences.

As a profession, we are loud in our condemnation of empiricism. Has it ever occurred to you that the general practitioner, the one that I have been trying to describe, is always more or less of an empiric? Well, he is. It would be impossible to fetter such a man by set therapeutic or surgical rules. To this class of men the authors are not sacred. The limitations of the teachers have no restraint upon them. They think for themselves, they observe for themselves, they act for themselves. They often set aside fixed rules, they ignore pet theories, they become, for the time being, empirics; and to this class of men the profession owes more than to any other for the advancement in medicine and surgery. They are always found in the van of the procession of progress.

Through this class of men new facts in medicine are being born

daily,—aye, hourly. They know no limit to progress, they reject the authority of any man who presumes to say that a question in medicine is a settled question. They hold that in therapeutics, as in surgery, all questions are open at the top. They believe that one demonstrated fact is worth more than a cart-load of theory. They reject the teaching of the theorist, except where it is proven by absolute bed-side practice. They care nothing for the *ipsi dixit* of the chemist, the pharmacologist or the therapist, as such, unless their theories agree with the demonstrated facts of actual practice.

I would not be understood, gentlemen, as asserting that this man, of whom I write, is disposed to wrap himself about with an impervious cloak of self-conceit. That he considers that none but his class are competent to make observations. That he ignores all the teachings of the specialist or the man of "the schools." That none but his class contribute to the great advances, and the rapid strides of the profession; but I would have you understand that he is no longer a servile follower of other men's ideas, without subjecting them first to the crucible of practical test, and that he claims as his inalienable right the privilege to walk alone in his investigations and to arrive at his own conclusions, proving all things, and holding fast to those only that are true.

Such, gentlemen, is my conception of the modern, down-to-date, general practitioner, portrayed in my feeble way.

Journal

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E. J. GOODWIN, M. D., Editor.

PUBLICATION COMMITTEE:

Walter B. Dorsett, Chairman.

M. B. Clopton,

M. C. Shelton.

EDITORIAL

THE DAILY PRESS AND THE MEDICAL PROFESSION.

An illustration of what the press can do in bringing before the people the educational short-comings of a medical practitioner was evidenced quite recently in an editorial which appeared in the *St. Louis Republic*. According to the writer, a news story printed in the *Republic* told of a letter said to have been received by a judge of one of the St. Louis police courts and signed by a practicing physician living in St. Louis. The unusual epistle ran thus:

St. Louis, Mo., Feb. 18, 1908.—This is to satisfy
that Mr. Ebrum Stenberg, 624 Carr st is Cyek Under
mie car Uneble to wock.

Here in the space of a few lines we have material enough for a lengthy sermon. That the Missouri State Board of Health has recently been authorized to raise the educational standard among physicians applying for license to practice, is a fact for which there can be nothing but praise from those who have always desired the change. But what pleases us most in the matter, is not so much the law as the interest in the law evinced by an organ of the lay press in bringing an instance of extreme ignorance on the part of a medical practitioner before the public. This interest carries the intent which must finally lead to what the educated physicians among us most desire—coöperation between the press and the profession.

A manifest desire on the part of the press not only to approach the subjects which concern us most, but a willingness to assist, by argument

and publicity, is an awakening we should applaud. With us, for a long time, the dire status of laws controlling the health and sanitary conditions of the state has not been an unknown quantity, and the apathy of the press was such that all efforts on the part of the organized medical profession for improving these conditions, has placed all the burden on the shoulders of the physicians advocating the changes. The daily press is our ablest ally in educating the people to a proper realization of the dangers attending any faulty system touching the health of the community. To illustrate in how far the right influence, when expressed in weighty articles of a paper, can benefit a measure to abolish a wrong, was shown directly after the holocaust in the schoolhouse at Collinwood, by the thorough and systematic attack on the inadequate protection against fire in the schools of St. Louis.

Bearing this in mind we feel some justification in asserting that if the press would concentrate itself in the same manner on the advocacy of the medical inspection of schools, the prevention of tuberculosis, the hygienic and sanitary requirements of public buildings, and the support of measures introduced by the medical profession in the state legislature, physicians again would find that the help of this powerful ally would be instrumental in bringing about reforms, which the profession realizes are very much needed but which cannot be effected at once without educating the people through the press. Our desire for the sort of help which a coöperative spirit on the part of the press would carry, can be granted us without hesitancy, for any measure that emanates from the organized medical profession, or has the endorsement of the profession, contains such seeds for good that an enthusiastic support, if withheld by the writers on the press, really amounts to a discourtesy which our accustomed friendly attitude towards the press and the people does not warrant.

In taking up the matter of the ineffable ignorance of a fellow practitioner as regards the manipulation of the lingual instrument peculiar to our soil—the English language—the *Republic* deserves more than passing praise; but though the reprimand should give us pause, the failure of the physician as an incipient English scholar is not the crux which should confront physicians at large when giving the matter thought. For our opinion and that of many thinking men has always been that the State Legislature should display greater intelligence in its attitude towards the State Board of Health, so that suggestions of import and privileges which should be theirs will not be balked by interference until they become vexatious problems. We affirm this again, because we are in complete accord with the *Republic* when it says, "Surely if there is a legal way to get doctors of this class out of the licensed list

the Legislature should be called on to give the power to the Board of Health at its first opportunity."

THE PROGRAM.

In this issue we publish the preliminary program for the annual meeting. The number and character of the papers indicate that the meeting at Springfield will be one of the most enthusiastic and best attended in the history of the Association. We would request that those gentlemen who have not yet announced the titles of their papers, communicate with the committee at an early date, so that the titles may be included in the program when published in the next issue of the JOURNAL.

PAYMENT OF DUES—ROSTER OF MEMBERSHIP.

We earnestly urge upon county societies that prompt attention be given to the payment of dues in the State Association. In April we shall publish a list of members in good standing and we want the name of every member of the Association in this list. Those members who do not pay their dues in time to have their names included in this list will not be continued on the mailing list of the JOURNAL until their dues have been paid. It is very important that every member pay his dues in his local society at this time, so that the roster of the Association, when published in the April issue, may be complete.

Dr. John D. Seba, of Bland, is a candidate for representative from Gasconade County. We are much pleased to inform our members of Dr. Seba's willingness to enter the contest for representative from his county. If elected, Dr. Seba will faithfully and intelligently represent the people of Gasconade County, and the medical profession can rest assured of his support of all measures to improve the health and sanitary conditions of the state. We sincerely trust he will be elected. The former representative from this county, although a practitioner of medicine, seemed to be constitutionally opposed to anything the doctors in the state asked from the legislature, and constantly obstructed the progress of medical bills introduced by the profession. Such a person, drawn from our own ranks, does incalculable harm by assuming an attitude that is condemned by the profession, but which other members of the legislative body cannot be expected thoroughly to understand or properly interpret.

The State Board of Health, through its committee on inspection of medical colleges, has taken steps to have medical colleges outside of this state, whose graduates come before the board for examination for

licenses to practice, to place their schools upon the same basis as required by the regulations of the Missouri State Board of Health in respect to equipments and preliminary education. Preliminary correspondence with other colleges has resulted in encouraging reports and indicates that the time is not distant when all medical colleges will contain the equipment necessary for teaching as required by the regulations of the Missouri State Board of Health.

Dr. Gustav Ettmueller, of Jefferson City, is a candidate for state representative from Cole County. The citizens of Cole County could not better evidence their confidence in the medical profession of Missouri than by electing Dr. Ettmueller to represent them at the next meeting in the legislature. His long service in the medical profession of the community in which he lives, and the activity he has evinced in promoting all measures which will enhance the welfare of the people, and protect the citizens from the dire results of loose medical regulations governing the sanitary and health conditions, stamp Dr. Ettmueller as a progressive, intelligent and competent person to represent the interests of his county.

We desire to call the attention of county societies to the necessity of appointing members to represent them on the Auxiliary Legislative Committee for the American Medical Association. Each county society should nominate one member to meet and confer with this committee, so that all county societies will be represented.

"The Archives of Diagnosis" is the title of a new publication recently established by Dr. Heinrich Stern, of New York. The publication will be issued quarterly and its contents will be limited to such papers as bear upon the science of diagnosis. It is published purely in the interests of scientific medicine and will carry no advertisements.

The first number appeared in January. The appearance and make-up of this issue gives promise of a journal which will merit the esteem and support of the profession. The book is printed on excellent paper, the type is of a character to be easily read, and its general dress is such as to make the reading of the articles a matter of pleasure as well as of interest. Among the contributions to the first number are the following: "Diagnosis and Prognosis of Mitral Stenosis and Aortic Stenosis," by De Land C. Rochester; "The Relative Importance of Symptomatic and Physiological Diagnosis in Neurology," by Harrison Mettler; "Some Observations on Grocco's Sign in Pleurisy, with Effusion," by Thomas F. Reilly.

Charles Brand, Herbalist, 2011 Franklin Ave., one of the numerous advertising medical fakers in St. Louis, was arrested recently and pleaded guilty to the charge of holding out as a physician without a license to practice. A fine was assessed against him, but on payment of costs this was staid. Brand advertised extensively by handbills in certain of the poorer quarters of St. Louis, as being able to cure by "nature's" remedies, rheumatism, dyspepsia, neuralgia, piles, eczema, consumption, syphilis, paralysis and numerous other diseases; opium, morphine, cocaine and tobacco habits; "lost manhood" and "lost womanhood," etc.

Moses Hellseher—"Moses II."—Clairvoyant, Medium and Healer, 1564 Lafayette Ave., St. Louis, was arrested and convicted of the charge of holding out as a physician without license to practice, and fined \$250.00. Hellseher claimed to possess remarkable powers of removing "long standing and strange sickness," to "cause speedy and happy marriages."

The St. Louis Health Department is to be commended for the active crusade it has inaugurated to rid St. Louis of the quacks who prey upon the ignorance and superstition of the sick, poor and needy.

The second Villa of the Missouri State Sanatorium for Incipient Pulmonary Tuberculosis is practically completed, and by the middle of March should be furnished and ready for occupancy. There are a number of applicants waiting for examination. But even in the event that all of these applicants should be found to be eligible (and this is unlikely), there will still be room for a few more. The law provides that admissions be strictly according to the priority of the application,—the first come, the first served.

Physicians who have patients that are thinking of making application for admission should have them do so at once. All requests for information are gladly answered.

The following articles will be added to the list of New and Non-Official Remedies approved by the Council on Pharmacy and Chemistry: Bromural (Knoll & Co.).

Elixir Buchu, Juniper and Acetate Potass. P.-M. Co. (Pitman-Myers Co.).

Tablets Acet—Phenetidin Comp. P.-M. Co. (Pitman-Myers Co.).

Syrup Cannabis Com. P.-M. Co. (Pitman-Myers Co.).

Veroform Antiseptic (Veroform Hygienic Co.).

Veroform Germicide (Veroform Hygienic Co.).

IN MEMORIAM.

ROBERT LUEDEKING, M. D.

This community lost one of its foremost citizens on February 29th, 1908, in the person of Dr. Robert Luedeking.

The doctor's scholarly tastes were inherited in part from his father, who conducted a girls' school in this city something more than a half a century ago. The doctor was born in this city in 1853, and attended the St. Louis High School, from which he graduated in 1874. Going to Germany, he took up his medical studies at Heidelberg, from whence he removed to Strassburg, being graduated from the latter university in 1876. While in Europe he devoted himself largely to the study of pathologic anatomy, in which he did some brilliant and original work, his paper on the "Regeneration of Unstripped Muscle Fibre" being especially valuable.

After a year of post graduate study in Vienna, he returned to this city, and soon after took a position in the service of our health department. While his position was that of clerk of the Board of Health, his duties were not exclusively such as one might infer from the title of his office, for on various occasions he served as acting superintendent of the City and Female Hospitals, during the temporary absence of the physicians in charge of those institutions. In 1882 he commenced his connection with the St. Louis Medical College, now the Medical Department of the Washington University. At first lecturer of pathologic anatomy, he was, a year later, advanced to the professorship in that branch. The excellent character of his instruction in this science is remembered by many who had the good fortune to attend his lectures, demonstrations and post-mortems. After some years Dr. Luedeking was made professor of diseases of children and was ever after best known for his activity in connection with pediatrics. In 1902 he became dean of the medical department of the university, and three years later, while continuing his former duties, he was offered and accepted the chair of clinical medicine. Both as professor and as dean he probably made a deeper impress upon the policy of the medical department and upon its future than has any one man since the death of the lamented Henry Mudd.

It is with no idle curiosity that we seek to learn and record some of the leading facts in the lives of our eminent dead. In all lands and in all ages men have learned the necessity of setting before them types for admiration, emulation and example, and it is especially fit that we should seek for these among those who have passed *moenia mundi flammantia*, and whom we can contemplate with a truer vision perhaps than when they were closer at hand. Every life well lived bears for us a lesson.

What was the leading characteristic of Dr. Luedeking? Was it his love of study, was it his industry, was it his administrative skill, was it his unfailing serenity and equanimity, was it his kindness to all, both to those in distress and to his companions? It was, some may say, his devotion to duty, but devotion to duty is only one form of altruism, and it seems to us that all the qualities and attributes enumerated above can be included under the one term, unselfishness. This was his leading characteristic and this accounts for the willingness with which he gave hours of toil, hours which often could have been spent more profitably to himself, to the up-building and to the care of the medical school of which he was the head, believing that in this he was doing a great and useful work. This same quality of unselfishness accounts for his cheerfulness, for the readiness with which he met his friends with a pleasant smile and the hand outstretched in friendship, even when carrying perhaps unknown to them a heavy weight of care. He did not wish to burden others with his own fears and anxieties. This was pathetically apparent towards his end when all could see that his remaining days on earth were but few, and it enabled him to face the grim specter with imperturbable courage and to look forth upon this world for the last time with his accustomed smile.

Those who knew him will preserve his memory green and fragrant until they too are called to follow whither he has gone.

LEONIDAS H. LAIDLEY, M. D.

Dr. Leonidas H. Laidley died at his home in St. Louis on February 5th. His death was entirely unexpected, as he was apparently in good health up to the day before his death.

Dr. Laidley was born in Carmichael, Pa., in 1844. He was a graduate of the Jefferson Medical College, taking his degree from that institution in 1868, and also received a diploma from the Bellevue Hospital College in 1872. Soon after graduating from the latter institution he moved to St. Louis, where he entered upon the practice of his profession and continued to labor in that field.

Immediately upon his arrival in St. Louis he took an active interest in the work of the Young Men's Christian Association, and was one of the founders of that institution in St. Louis. He was ever prominent in all matters which had for their object the improvement of health conditions, and was active in the campaign for the abolition of medical quackery. His most notable work was in connection with his duties as medical director of the Louisiana Purchase Exposition in 1904, he having administered the affairs of this office with commendable success. An epidemic of beri-beri, which developed among the Filipinos on the grounds of the Exposition, was controlled at its first appearance, and few persons were aware of the presence of this dread disease in the community. Dr. Laidley was professor of surgery and gynecology in the Medical Department of the St. Louis University, surgeon of the St.

Louis Protestant Hospital and consulting gynecologist of St. Ann's Asylum.

In the death of Dr. Laidley the medical profession of St. Louis and the state has lost a member who labored faithfully to uplift the medical status of the community in which he lived, one who was devoted to the principles which guide the true physician and who commanded the esteem of his confreres and the people who knew him.

DR. SENN AS A WRITER.*

BY GEORGE HOMAN, M. D.

The Genius of Toil marked Nicholas Senn as its own even in his early years, and out of much stress and travail of spirit came the written words which will fittingly constitute his monument to the generations yet to come.

In the building of these works, so characteristic of himself as a master-teacher, he brought the truth as he saw it to the forge, and there at white heat between hammer and anvil tested and tried it in the sight of all the world, holding fast only to that which in the end was found to be good. In the forging and fashioning of his scientific convictions he ever wrought with honest zeal, his blows ringing true, perhaps overlooking at times whatever of flaw in design or finish might at last appear in that upon which his patient and faithful labors were expended.

Toiling, rejoicing, overcoming, he proved by worthy deeds in the workshop of mind and conscience his right to fellowship with that band of hero-souls which our profession through all the ages has so freely given for the betterment of mankind.

In his more formal works, as well as in wayside notes as he journeyed over the world, his call by word and example was ever to higher and better things among his co-workers in the cause of scientific medicine. The spur to further effort conveyed by his spoken words will be gladly acknowledged by the many who heard him—among them the writer of these lines who has for years borne gratefully in memory a brief remark uttered on the occasion of a casual meeting, which sounded a note of cheer and helpfulness amid circumstances of much discouragement—and, none the less, is this true of his written messages.

The ascription of merit and praise to his chosen calling as being a profession that stands before all others in the value, amplitude, sacrifice, and sacredness of its services to mankind never failed, and was given eloquent utterance by him alike concerning such crises as the sweeping ravages of famine and plague in Asia, the desolating pestilences of Africa, and the appalling catastrophes of earthquake, epidemic, and conflagration in South America. His writings as a whole give forth a light that makes plainer the path of those who would follow truth, while as a beacon it

*Part of the Report of Memorial Committee, St. Louis Medical Society, March 7, 1908.

warns away from the reefs and shallows where so many medical barks have been lost.

The logic of right reason, the tenets of a serene faith alike forbid the thought that an intellect so keen, a spirit so ardent, could rest from those labors in which it so delighted. While the outward form is no longer seen yet true soul and high character, as writ by him on living memories and in the rich outgivings of his intellect, must mold and influence earthly lives so long as noble examples are valued among men.

Let it not be said, therefore, that he is no more but rather this: He has entered into life and his works do follow him.

FIFTY-FIRST ANNUAL MEETING,
SPRINGFIELD, MAY 19-21, 1908.

PRELIMINARY PROGRAM.

Medical Section.

- Noah Adams.....Kansas City
"The Care and Treatment of Nasal Rhinitis."
- E. G. Beers.....Springfield
"The Doctor in Politics; or, His Civic Responsibilities."
- W. L. Brosius.....Gallatin
"Conservatism in Medicine."
- Tinsley Brown.....Hamilton
"Pneumonia."
- J. W. Clark.....Cartersville
"Echinacea Angustifolia."
- W. G. Cowan.....Sedalia
"Irrational Use of Drugs in the Treatment of Disease."
- J. J. Ferrell.....Owensville
"Acute Articular Rheumatism; Its Cause, Mode of Infection and Treatment."
- S. A. Johnson.....Nevada
"The Present Stand and Thought Regarding Opsonins."
- A. W. McAlester, Jr.....Kansas City
"The Application of Tuberculin to the Eye as a Means of Diagnosis of Tuberculosis."
- J. A. McComb.....Lebanon
"The State's Responsibility to Its Citizens; From a Medical Standpoint."
- W. A. McKelvey.....Minden Mines
"Therapeutics."
- Jesse S. Myer.....St. Louis
"Examination of the Feces as a Routine Procedure."
- J. L. Ormsbee.....Springfield
"The Physician's Relation to the Pharmacist, Practically Considered."
- O. L. Peak.....Springfield
"The Passing of an Old Therapy."
- G. Wilse Robinson.....Nevada
"Prophylaxis of Insanity."
- E. H. Schorer.....Columbia
"Early Diagnosis of Tuberculosis and Use of Tuberculin in Diagnosis and Treatment."
- Chas. Shattinger.....St. Louis
"The Treatment of Visceral Ptosis by Respiratory Exercises."

J. S. Triplett.....Harrisonville
 "Endocarditis."

Fenton B. Turck.....Chicago
 "Feeding Experiments on Animals Applied in Surgery and
 Internal Medicine."

A. H. Vandivert.....Bethany
 "Sanitation of Churches, Public Halls and Assembly Rooms."

L. M. Warfield.....St. Louis
 "Recent Tuberculin Tests: Their Importance for the General
 Practitioner."

C. W. Watts.....Fayette
 "Ethics."

G. W. Whitely.....Albany
 "Therapeutics and Its Relation to the Practitioner."

B. H. Zwart.....Kansas City
 "Myocardial Degeneration; Prophylaxis."

SYMPOSIUM ON TUBERCULOSIS.

H. Wheeler Bond.....St. Louis
 "Methods in Force and Proposed Methods in St. Louis."

O. H. Brown.....Mt. Vernon
 "Reports from the State Sanatorium for Incipient Tuberculosis."

Solon Cameron.....St. Louis
 "Clinical Reports from Mt. St. Rose."

A. H. Hamel.....DeSoto
 "The Responsibility of the Board of Health."

T. F. Lockwood.....Butler
 "Public Education Against Tuberculous Invasion."

A. W. McAlester.....Columbia
 "Universities and Colleges as Factors in the Educational
 Campaign."

E. W. Schauffler.....Kansas City
 "Care of the Consumptive."

Surgical Section.

Nathaniel Allison.....St. Louis
 "Congenital Dislocation of the Hip."

R. F. Amyx.....St. Louis
 "Report of Case of Non-Malignant Stenosis of Pylorus of
 Two Years' Duration—Posterior Gastro-Enterostomy—
 Death Due to Reverse Peristalsis."

Edmund A. Babler.....St. Louis
 "The Danger of Permitting Warts and Moles to Grow, Lest
 they Become Malignant: With Report of Twenty-five
 Illustrative Cases from the St. Louis Skin and Cancer
 Hospital."

J. N. Barger.....Darlington
 "The Preparatory and After-Treatment of Surgical Cases."

- Willard Bartlett.....St. Louis
 "Personal Experience in the After-Treatment of Surgical Cases."
- T. J. Beattie.....Kansas City
 Title not announced.
- G. Wiley Broome.....St. Louis
 "Dr. Nicholas Senn: His Life and Character."
- C. E. Burford.....St. Louis
 Title not announced.
- O. Beverly Campbell.....St. Joseph
 Title not announced.
- N. B. Carson.....St. Louis
 "Cancer of the Rectum."
- Malvern B. Clopton.....St. Louis
 "Typhoid Perforation."
- A. H. Cordier.....Kansas City
 "Some Clinical, Pathologic and Surgical Phases of Stones
 in the Kidneys."
- H. S. Crossen.....St. Louis
 Title not announced.
- H. C. Dalton.....St. Louis
 "Rupture of the Bladder."
- W. B. Deffenbaugh.....St. Joseph
 "Treatment of Fractures of the Shaft of the Femur."
- Orville H. Dove.....Kansas City
 "Gall Stone Disease."
- J. W. Dreyfus.....Louisiana
 "Distinctive Features of Railroad Surgery that Peculiarize
 this Class of Injuries."
- Hal. Foster.....Kansas City
 "The Removal of Bodies From the Respiratory Tract and
 Esophagus by the Bronchoscope: With Report of Cases."
- W. J. Frick.....Kansas City
 Title not announced.
- Chester E. Fulton.....Springfield
 "Stricture of the Esophagus."
- G. W. Gale, Jr.....St. Louis
 Title not announced.
- Jacob Geiger.....St. Joseph
 "Hypernephroma."
- J. D. Griffith.....Kansas City
 "Subserous Hernia of the Abdominal Wall."
- Arthur E. Hertzler.....Kansas City
 "The Technic of Hysterectomy."
- Howard Hill.....Kansas City
 Title not announced.

- Frank Hinchey.....St. Louis
 "Eversion of the Uterus, with Expulsion of a Large
 Fibromyoma."
- Jabez N. Jackson.....Kansas City
 Title not announced.
- Ernest Jonas.....St. Louis
 Title not announced.
- R. Emmett Kane.....St. Louis
 Title not announced.
- Walter C. G. Kirchner.....St. Louis
 "Infections of the Knee Joint and Treatment."
- Bransford Lewis.....St. Louis
 Title not announced.
- Frank J. Lutz.....St. Louis
 "Empyema."
- Ernest G. Mark.....Kansas City
 Title not announced.
- Fritz J. Moenninghoff.....Kansas City
 "A Brief Consideration of Post-Operative Gas Distention
 of the Abdomen; With Suggestions for Prevention."
- C. C. Morris.....St. Louis
 "Modern Operations for the Radical Cure of Hernia."
- Frank G. Nifong.....Columbia
 "Differential Diagnosis Between Floating Kidney and
 Hydrops of the Gall Bladder."
- Geo. B. Norberg.....Kansas City
 Title not announced.
- W. B. Outten.....St. Louis
 "What is the Significance of Gaseous Products When
 Found in Contused and Lacerated Wounds?"
- Louis Rassieur.....St. Louis
 "Tuberculous Lymph-Adenitis of the Mesenteric Lymph-
 Nodes."
- Francis Reder.....St. Louis
 "Remarks on Intestinal Anastomosis."
- J. T. Reiley.....West Plains
 "Burn and Treatment."
- Wm. Rienhoff.....Springfield
 Title not announced.
- C. F. Roberts.....Kansas City
 "Bladder Drainage."
- Ernest F. Robinson.....Kansas City
 "Divulsion of the Scalp and Other Severe Scalp Injuries."
- St. Elmo Sanders.....Kansas City
 "A Modification in the Technique of Abdominal Supra-
 Vaginal Hysterectomy."

- John D. Seba.....Bland
 "Personal Experience in Gun-Shot Wounds."
- M. G. Seelig.....St. Louis
 Title not announced.
- William A. Shelton.....Kansas City
 "Treatment of Fractures Adjacent to Joints: With Report
 of Cases."
- W. S. Shirk.....Sedalia
 "Appendicitis."
- Edward H. Skinner.....Kansas City
 Title not announced.
- W. H. Stauffer.....St. Louis
 "The Operative Treatment of Hemorrhoids."
- W. R. Stickland.....Rockport
 Title not announced.
- Frank Joseph Tainter.....St. Charles
 "Pyloric Spasms."
- N. F. Terry.....Springfield
 "The Present Status of the Treatment of Cancer."
- Luther A. Todd.....St. Joseph
 Title not announced.
- W. S. Wiatt.....E. St. Louis
 "The Treatment of Diffuse Septic Peritonitis."
- W. H. Wiley.....Ridgeway
 "Surgery in a Country Practice."
- Llewellyn Williamson.....St. Louis
 "Excision of the Lachrymal Sac as a Radical Cure for
 Chronic Inflammatory Processes Thereof."
- Leo. W. Wright.....Lowry City
 "Importance of Early Surgical Interference of Tumors
 of the Breast."

SYMPOSIUM ON GALL STONE DISEASES.

- Pathology: Willard Bartlett.....St. Louis
- Symptoms: Roland Hill.....St. Louis
- Remote Consequences: Jno. C. Morfit.....St. Louis
- Treatment: C. M. Nicholson.....St. Louis

COUNTY SOCIETY NOTES

CALDWELL COUNTY MEDICAL SOCIETY.

The Caldwell County Medical Society met in Hamilton, on January 29th, with the best attendance in the history of our society. There was an attendance of fourteen members. Two were admitted to membership, Dr. W. M. Duffie, by transfer from Adair County Medical Society, now located at Hamilton, and Dr. R. H. Watson, R. F. D. No. 1, Hamilton.

We now have about all the physicians who are available for membership in our county. Dr. E. H. Miller, of Liberty, Councilor of the Twelfth District, was present and took part in the proceedings. He said this was the best county meeting that he had visited.

Dr. B. F. Carr, of Polo, read a paper on "Diphtheria." Dr. C. M. McConkey, who formerly resided at Mirabile, in our county, but now living in Lathrop, read a paper on "Cystitis." Dr. S. D. Smith, of Cowgill, made a written report of a case of myxedema treated with thyroid extract, with apparently almost complete recovery. Dr. C. O. Dewey gave a written report of a severe case of facial erysipelas.

The election of officers for the year 1908 resulted as follows: Dr. C. O. Dewey, of Breckenridge, president; Dr. J. E. Gartside, of Kingston, vice-president; Dr. Tinsley Brown, of Hamilton, secretary and treasurer; Drs. R. L. Mount, W. M. Duffie and K. M. Dwight, censors; Dr. W. T. Lindley, of Hamilton, delegate to State Association, and Dr. G. W. Goins, essayist.

The next meeting will be held in Polo, in April.—TINSLEY BROWN, M. D., Reporter.

COLE COUNTY BRANCH OF THE MISSOURI STATE ASSOCIATION FOR THE CONTROL AND PREVENTION OF TUBERCULOSIS.

The organization of local antituberculosis societies in this state continues with satisfactory progress. A number of such societies have been organized in the counties and others are in the course of organization.

On January 8th, a local branch was formed in Cole county, at a meeting held in Jefferson City on that date. Dr. Gustav Etnmueller was especially active in contributing to the success of this meeting. He presided as temporary chairman and furnished the press with full information of the purposes of the association. Mrs. Joseph W. Folk was elected president of the local society, and Mrs. Charles P. Hough was elected secretary. Addresses were made by Dr. Wm. Porter, of St. Louis; H. Wheeler Bond, health commissioner of St. Louis; Robert J. Newton,

secretary of the state association; and Dr. George Homan, president of the state association. In his address Dr. Homan said:

"The movement of which this meeting is a local expression is becoming world-wide in extent and in its character and aims is one of the most encouraging signs of an advancing civilization.

Among the designations fittingly applicable to the last century is that of the Century of Tuberculosis, a cycle of time when the ravages of that disease probably reached a climax—a period when, save for isolated efforts of members of the medical profession, resolute resistance to its spread was not known, when, either passive endurance of the scourge, or an Oriental resignation to an affliction deemed unavoidable, marked the attitude of governments and of public sentiment as well.

But all this is changing and a determined fight against the disease is now being waged, or preparations to that end are being made, in nearly every place where civilization and its influences are known. And to what purpose? With the effect that already within the few years now passed of the twentieth century a decrease in losses from this cause can be proved in places where the sanitary opposition has been most intelligent, resolute and sustained.

But the mortality is still appalling, and the disabilities attending the course of this affliction most deplorable. No elaborate statistics in proof of this are needed. Any one who glances through the columns of daily papers issued in cities where official records of this kind are published, can easily satisfy himself or herself on this point; for, from such official returns as are embraced in the list of burial permits, he will see that steadily, week by week, and month by month, throughout the year, the deaths from tuberculosis in all its forms average about one in seven of the total number. And, as medical observation has shown, there are for every one thus taken away five others following in his steps—many of whom through ignorance or inattention are sowing the seeds of the disease broadcast among their fellows.

And how has the before mentioned visible change for the better been brought about? Not by medicines or nostrums, nor by any greatly improved method of treating individual cases, but, by instruction addressed to the great body of the people in their own communities, telling the simple story of the disease and its manner of spread—teaching the need of precaution and the means of prevention.

It will not do to say that such instruction is not needed in agricultural communities, or in population centers that have not yet attained to large municipal proportions, for consumption can and does move just as fast and as far as the traveler can journey, leaving infection often in unthought-of places, and claiming unsuspecting victims, who may be vastly more harmful to those around them than are the avowed cases that walk the streets of cities, and throng dispensaries and hospitals for treatment.

This meeting, therefore, is a recognition and confirmation of the view thus expressed, and it is most appropriate and necessary that such a light should be set burning in the Capital City of a great state, a city set on a hill and that cannot be hid, where its influence and illumination can be brought to bear directly on those who come here to shape the destinies of its people through legislation, and administrative direction and control.

From the nature of things, immediate, conspicuous or showy results in this work cannot be looked for, but, as in the words of the Good Book, "little by little they drove out the Canaanites," so little by little with the multiplication of such acts of organization as this throughout the state, and through diligent faithful endeavor, will the tide of tuberculosis be stayed, pending its reduction and disappearance when public opinion shall be ripe enough to demand outlays of funds adequate to the performance of such a task. From this point of view it would be fortunate, indeed, if this major plague slew its victims within three days or three weeks, as does the minor scourge of bubonic plague, instead of three years, for then the horrors of the disease would be so accentuated that even the most selfish and sordid business interests would demand of organized civil government the amplest means whereby such losses might be prevented.

It is considered by the officials and members of the Missouri State Association for the Relief and Prevention of Tuberculosis both a pleasure and a privilege to aid in effecting local organizations of this kind, and in their behalf cordial thanks are extended for the opportunity thus afforded, with the best of good wishes for prosperity and the accomplishment of much good work."

CHARITON COUNTY MEDICAL SOCIETY.

The Chariton County Medical Society convened in regular session at Salisbury, January 30th.

Members present: Drs. Hawkins, Jennings, J. H. P. Baker, W. L. Baker, Welch, Brummall and McEuen; visitor, Dr. Marks.

A resolution was adopted changing the time of regular meeting from the last to the second Thursday in each month.

Dr. I. Knott, of Keytesville, was elected the representative on the legislation committee.

Dr. G. W. Hawkins read an interesting and instructive paper on "Gonorrhea and Its Sequelæ," which was fully discussed.

Adjourned to meet in Brunswick, February 13.

MEETING OF FEBRUARY 13TH.

The Chariton County Medical Society convened in regular session at Brunswick, on February 13th at 2:30 p. m. There were twelve members present; six from Salisbury, leaving only one in that city. This was a good meeting.

Dr. Harry Tatum read an interesting paper on puerperal eclampsia, which was well discussed. The consensus of opinion was that the condition was the result of toxemia, though the cause could not always be ascertained. The treatment generally recommended was large doses of Norwood's tinct. veratrum viride, hypodermically, and proper elimination by the kidneys and bowels.

Dr. W. L. Baker read a good paper on lobar pneumonia, which was duly discussed by the members and received many compliments.

Our next meeting will be in Salisbury, on Thursday, March 12th.—C. A. JENNINGS, M. D., Secretary.

GREENE COUNTY MEDICAL SOCIETY.

The Greene County Medical Society met in regular session on Friday evening, January 24th. After a short business session at which the society passed a resolution requesting our senators and congressmen to pass the bill granting the widows of Dr. James Carroll and Jesse W. Lazear a pension, the society adjourned to the banquet hall where the newly elected president, Dr. T. A. Coffelt, presided as host at an elegant banquet. With Dr. W. M. Smith as toast master the following toasts were made and responded to: "The Ethical Doctor," Dr. J. E. Tefft; "The Doctor as a Politician," Dr. C. E. Woody; "Modern Superstition," Dr. J. C. Matthews; "Stomach or Liver—Which?" Dr. N. F. Terry; "The Pros and Cons of a Young Doctor," Dr. E. G. Beers; "Medicine Madam," Prof. J. R. Roberts; "What's Worth While," Dr. J. R. Boyd; "The Story Telling Doctor," Dr. J. W. Williams; "Our Opportunities," Dr. B. F. Fortner; "The Doctor and the Minister," Rev. C. H. Briggs. The president, Dr. T. A. Coffelt, made a short talk for the "good of the order" and on motion was given a vote of thanks from the society for the excellent banquet.—J. L. ORMSBEE, M. D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY.

The Howard County Medical Society met at Fayette, on February 7th, with five members in attendance.

Drs. Richard Smith and N. E. Smith presented a patient who had been injured in a dynamite explosion. One hand was so badly shattered that amputation at the wrist was necessary. The patient made a good recovery without complications.

Dr. Wright was requested to prepare a memorial on the late Dr. Nicholas Senn, which is to be read at our next meeting.

Dr. Watts presented a paper on "Ethics." Drs. Orr and N. E. Smith were selected to read a paper at the next meeting.

The next meeting will be held at Fayette, on March 1st.

MEETING OF MARCH 1ST.

The Society met at Fayette with the following members present: Drs. Bonham, Burgwin, Richards, Lee, P. C. Smith, N. E. Smith, Wright and Watts.

A number of clinical cases were presented, namely: Acute articular rheumatism, by Dr. Bonham; a case of acute gonorrhea in a girl, by Dr. P. C. Smith; a case of osteomyelitis, presumably of tuberculous origin, in a boy of 13 years.

Dr. N. E. Smith and Dr. C. W. Watts were requested to prepare papers for the annual meeting at Springfield.

Dr. W. S. Thompson will read a paper, "Diagnosis of Psoas Abscess," at the April meeting. Discussion by Drs. Burgwin and Fleet.—C. W. WATTS, M. D., Secretary.

JEFFERSON COUNTY MEDICAL SOCIETY.

The Jefferson County Medical Society met in De Soto, January 28th, 1908, and the following officers were elected for the coming year: G. W. Tidwell, De Soto, president; C. G. Harris, Festus, vice-president; R. E. Donnell, De Soto, secretary; A. H. Hamel, De Soto, delegate; J. E. Jones, Hillsboro, alternate.

The president appointed Drs. A. H. Hamel, W. E. Gibson, W. H. Farrar and R. E. Donnell as a committee to arrange for a series of practical anatomical demonstrations for the coming year.

The society endorsed the movement in congress to pension the widows of the physicians who lost their lives in demonstrating the infectious nature of yellow fever at Havana, Cuba, and the secretary was ordered to send such endorsement to our representative in congress.

Cases of varioloid were reported by Dr. Hamel and care and treatment discussed.

All members of the society will be urged to attend the meetings in the interest of organized medicine, and all reputable physicians who are not members will be solicited to join and an effort will be made to get them interested in further advancing organized medicine. A copy of the proceedings of the meeting will be sent to every reputable physician in the county with notice of next meeting. The next meeting will be held February 24th, at De Soto.—R. E. DONNELL, M. D., Secretary.

PIKE COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Pike County Medical Society was held in Louisiana, March 2nd. The following members were present: Drs. Biggs, Treadway, Pearson, C. L. Bankhead, Hetherlin, Dreyfus, Davis and Hereford.

A very interesting paper on "Gall Stones" was presented by Dr. Biggs. Several clinical cases were exhibited.

Dr. Edgell, of Eolia, and Dr. Whitesides, of Ashley, were admitted to membership.

The next meeting will be held in Bowling Green, April 6th, when a very interesting program will be presented.—R. GRAHAM HEREFORD, M. D., Secretary.

ST. JOSEPH-BUCHANAN COUNTY MEDICAL SOCIETY.

Regular Meeting, January 22, 1908.

Dr. M. S. Gray was elected to membership. Dr. Fred H. Ladd's application for membership was read.

Dr. D. L. Humfreville read a paper on "Influenza." Discussion was opened by Dr. John M. Doyle. There was an extensive discussion, participated in by Drs. Wallace, McGill, Campbell, Potter, Leonard, J. Geiger, Bowen, Elam, Bansbach, Gray and Gleaves.

Dr. Jacob Geiger reported a case of double cystomata of the ovaries.

The president appointed the following standing committees for the present year: Public Health: P. I. Leonard, A. E. Holley, C. W. Fassett; program: C. W. Fassett, A. L. Gray, W. L. Kenney; executive: O. G. Gleaves, W. T. Elam, S. F. Kessler.—CHARLES WOOD FASSETT, M. D., Secretary.

The antituberculosis movement made its first demonstration in St. Joseph, on the evening of January 18th, when a public meeting was held in the Y. M. C. A. auditorium. Dr. Wm. Porter, of St. Louis, was the principal speaker, delivering one of his forceful, convincing lectures on the care of the tuberculous, and the best means of preventing the spread of the white plague. Other speakers were: Drs. C. H. Wallace, Rev. Jos. Brady and Dr. C. O. Cross, of Kansas City. A number of musical numbers were rendered by local talent. The meeting was arranged by the Anti-Tuberculous Committee of the County Medical Society, and was the initial step towards the organization of an auxiliary antituberculosis society in St. Joseph.

ST. LOUIS MEDICAL SOCIETY.

MEETING OF FEBRUARY 29.

A special program was arranged for this meeting, consisting of a practical demonstration of certain aspects of the physiology of the circulation, by Dr. C. C. Guthrie, professor of physiology in the Medical Department of Washington University. A very considerable amount of original research and experimental work is being done in the medical laboratories of the universities in St. Louis, but heretofore it has not been the privilege of the general membership of the Society to witness these experiments. The announcement, therefore, that Dr. Guthrie would give an exhibition of this character before the Society was received with a great deal of enthusiasm, and the hall was taxed to its utmost capacity to accommodate all those in attendance.

Under an anesthetic a dog was allowed to bleed to death, and then the heart was taken from the chest cavity and entirely separated from the body of the dog. The blood of the animal was collected in a receptacle and the fibrin separated out. The blood was then mixed with saline solution and this mixture was injected into the root of the aorta of the isolated heart, thus establishing a circulation through the coronary

vessels. In a short time the heart commenced to pulsate again, and kept on beating during the entire evening, under the influence of this injection mixture of saline solution and blood.

Another demonstration consisted of causing a strip of heart muscle to contract while lying in saline solution, thus showing the stimulating action of the solution. A similar strip of muscle taken from the same heart and placed in the animal's own blood did not contract.

Another etherized animal was asphyxiated until the heart had stopped beating; saline solution was then injected into one of the large vessels of the heart and artificial respiration was performed. In a short time the heart commenced beating and the animal was resuscitated. An instrument for resuscitating intact animals by perfusion of the coronary vessels and occlusion of the aorta was shown.

In another animal decapitation was performed, after which, by occlusion of the aorta and artificial respiration, the heart's activity and blood-pressure were maintained.

These demonstrations emphasized physical methods of controlling the circulation. Reference to the employment of drugs was made. Also the physiological aspects of clinical transfusion of blood were briefly discussed.

Other demonstrations consisted of the results of transplanting blood vessels—taking a section of a vessel from one animal and transplanting it into the corresponding vessel in another animal—taking a section of vein from one animal and transplanting it onto an artery in another animal.

Another experiment consisted of reversing the circulation; that is, severing the vein and the artery and implanting the severed end of the vein into the cut end of the artery, and *vice versa*.

Dogs were shown in which such operations had been performed for periods of ten to thirty months.

A dog was exhibited in which, thirty-seven days previously, a segment of vein, preserved for two months in formaldehyde solution, had been interposed between the ends of a divided common carotid artery. The circulation through the segment was excellent.

A dog was shown having a large goitre on the left side. Ten months previously the enlargement was equally as great on the right side. At that time the circulation was altered by dividing the right inferior thyroid vein and right common carotid artery and anastomosing the central end of the artery to the peripheral end of the latter, thus reversing the circulation in the right inferior thyroid vein. The right lobe of the gland now appears normal in size.

The operation of blood vessel anastomosis was described and illustrated by charts. Instruments used were shown and specimens and slides showing the gross and histological results were demonstrated. The present status of organ transplantation was briefly discussed.

Dr. Guthrie was assisted in these experiments by a number of senior

students, who had been instructed by him in the regular course of their studies.

A feature of the evening's program was the "smoker," which followed the scientific program. Refreshments were served and a pleasant hour spent in mingling together socially.

MEETING OF MARCH 7TH.

At the regular meeting of the Society on March 7th, papers were read in memoriam of Dr. Nicholas Senn, and a special program on medical history subjects was carried out. The Senn memorial papers were as follows: "Senn as a Man," by Dr. W. B. Outten; "Senn as a Writer," by Dr. Geo. Homan; "Senn as a Teacher," by Dr. W. H. Stauffer; "Senn as a Surgeon," by Dr. A. H. Meisenbach; "Senn as an Operator," by Dr. Carroll Smith.

The following papers were read on medical history subjects: "Some Lessons from Medical History," by Dr. J. M. Ball; "J. Ignace Guillotin—A Biographical Sketch," by Dr. F. J. Lutz; "Glimpses of Early St. Louis Medical History," by Dr. W. B. Outten; "Pre-Columbian Cranial Surgery (Lantern-slide Demonstrations)," by Dr. H. M. Whelpley. The program included a display of old medical books, prints and instruments.

The occasion was one of much interest and pleasure to the doctors who attended this meeting. The display of old medical books, prints and instruments was particularly attractive. This display was furnished by the following doctors, all of whom loaned articles from their private collections: Drs. J. M. Ball, Joseph Grindon, J. J. Houwink, F. J. Lutz and J. F. Menestrina.

BOOK REVIEWS

SURGERY: ITS PRINCIPLES AND PRACTICE. In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M.D., LL.D., Hon. F.R.C.S., Eng. and Edin., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Phila. Volumes I and II. Philadelphia and London: W. B. Saunders Company, 1907. Per volume: Cloth, \$7.00 net; half morocco, \$8.00 net.

This entirely new surgery, edited by Dr. W. W. Keen, consists of five large octavo volumes covering the entire field of surgery in a thorough and complete manner. The authors are renowned specialists with international reputations accepted as authorities throughout the surgical world, so that every chapter represents a complete and original monograph by an authority of recognized eminence. A special feature consists of the 1500 magnificent illustrations in the text and some 50 colored plates. This system of surgery is undoubtedly the most complete and thorough exposition of modern surgery that has yet appeared.

MODERN MEDICINE. Its Theory and Practice. In Original Contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 1,000 pages each; illustrated. Volumes II and III. Price per volume, cloth, \$6.00 net; leather, \$7.00 net; half morocco, \$7.50 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1907-1908.

The second and third volumes of this monumental work have appeared. The second volume is devoted entirely to a consideration of the Infectious Diseases. This subject is continued in the first part of the third volume, whose second part, comprising nine chapters, considers the Diseases of the Respiratory Tract. "The Mechanics of Respiration and of the Respiratory Tract" are discussed by Dr. Thomas R. Brown; "Diseases of the Nasopharynx, Pharynx and Tonsils," by Dr. Francis R. Packard, and the chapter on "Hay Fever," is written by Dr. W. P. Dunbar, including a full discussion of the results obtained by Dunbar in the use of pollantin; "Diseases of the Lungs" is covered in chapter XIX by Dr. Hobart Amory Hare, and 58 pages are devoted to this subject. The other chapters are as follows: Chapter XVII., "Diseases of the Larynx," by Dr. H. S. Birkett; Chapter XVIII., "Diseases of the Bronchi," by Dr. A. McPhedran; Chapter XX., "Diseases of the Pleura," by Dr. Frederick T. Lord; Chapter XXI., "Pneumothorax," by Dr. Walter B. James; Chapter XXII., "Diseases of the Mediastinum," by Dr. Henry A. Christian.

The fourth volume, now going through press, will cover Diseases of the Circulatory System and Blood. The fifth will deal with the whole great subject of Diseases of the Alimentary Tract. The sixth is to group Diseases of the Kidneys, those associated with Internal Secretion, those of still obscure causation, the Diseases of the Muscles, and Vaso-motor

and Trophic Disorders. The seventh and final volume completes the entire subject by covering Nervous and Mental Diseases. The convenience of this grouping is manifest.

A TEXT-BOOK OF PHYSIOLOGY. A translation of Tigerstedt's Physiology. By J. R. Murlin, Ph.D., Instructor of Physiology, Bellevue Medical College, New York City. With an introduction by Graham Lusk, Ph.D., Professor of Physiology, Bellevue Medical College. D. Appleton & Co., New York.

A new edition and an admirably clear presentation of the modern physiology that has resulted from accurate experimental research. Logical arrangements of the subject-matter and careful selection of material make it valuable for reference or as a text-book for students of medicine. The introductory chapters on chemical activities of cells and their functions and those chapters that deal with the central nervous system are especially worthy of commendation. Equipped with the preliminary training of students entering medicine fifteen or twenty years ago, such a text-book would be difficult to use intelligently. Such training is now presupposed and there is a demand for books that are efficient rather than for those that are easy.

THE ESSENTIALS OF HISTOLOGY, DESCRIPTIVE AND PRACTICAL, FOR THE USE OF STUDENTS. By E. A. Schafer, L.L.D., Sc.D., F.R.S., Professor of Physiology of Edinburg. Seventh Edition. Lea Brothers & Co., Philadelphia.

To the student of a decade or two ago the appearance of Schafer's book in a new edition seems like a renewal of college days. The present (seventh) edition has kept pace with the extended requirements of the medical course. More than five hundred and fifty cuts, many of which are in colors, embellish the work. These, together with a concise but sufficient text, present the subject of histology in a lucid form, making a most admirable work for the practitioner who wishes to review the subject as well as the student for whom the work is primarily intended. For simplicity and clearness, it is more suited for beginners than many of the foreign works from which the student has been compelled to abstract his knowledge.

FIRST STEPS IN MENTAL GROWTH By David R. Major, Ph. D., Professor of Education in the Ohio State University. The Macmillan Co., New York City.

The author of this little book has based his ideas largely upon the observation he has kept of his own child. He has taken up the development of the various extremities of the child and has gone carefully into the manner of its physical and mental growth. This book can be read with profit by the teacher and many physicians.

A QUIZ-COMPEND OF GENITO-URINARY DISEASES AND SYPHILIS. By Charles S. Hirsch, M. D., Assistant in the Genito-Urinary Surgical Department of the Jefferson Medical College, Philadelphia. P. Blakiston's Son & Co., Philadelphia.

This book is hardly a quiz-compend, it being more nearly an epitome of a subject which usually occupies a large volume. For a small work the book is very complete. As a general proposition, the use of quiz-compends should be discouraged, but we think this one can be read with advantage.

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ORIGINAL ARTICLES

DIGITAL INSALIVATION AND ITS INFLUENCE IN THE SPREAD OF DISEASE.*

BY GEORGE HOMAN, M. D., ST. LOUIS.

The influence of personal habits on the communication of infection cannot be ignored so long as our present conception of a germ causation for diseases dangerous to health and life shall endure, and it is because of this fact, and of the inveterate frequency with which many persons practice the habit of visiting their mouths with their fingers in the course of their occupations or employments, that attention is now invited in this direction—in short let the more pretentious designation used in the heading of this paper be dropped and the statement made outright that the practice of finger licking is one of the commonest of the unseemly and harmful habits observed among human beings in their daily social and business intercourse.

Unlike the young of many of the lower animals, the human infant is born with no sense of cleanliness whatever, and unless taught otherwise by word and example, may remain deficient in this respect throughout life. With the partiality of children for sweets and their complete unconsciousness of what later becomes known to them as dirt, it is not to be wondered at that they should freely and commonly lick their fingers being innocent of possible sanitary danger in so doing, but surprise must be expressed at the numbers of grown people in all walks of life, many of whom are of apparent refinement and education, who either have not outgrown or have acquired this habit, so reprehensible from a medical standpoint as it is hoped will later be made convincingly clear.

Ordinary dirt has been defined simply as matter out of place, and to be removed from human contact and environment by customary well known methods, but plus such definition the physician and sanitarian must in the light of today take into account the infectious agents, the

*Read before the Medical Society of City Hospital Alumni, February 6, 1908.

specific organisms, which his experience teaches are found in close association with inorganic waste in contact with animal life—these specific elements being the organisms that cause tuberculosis, pneumonia, epidemic cerebro-spinal fever, syphilis, diphtheria, grippe, rabies, mumps, tonsilitis, etc.

In what follows I desire it to be fully understood that examples of delinquencies noted in this connection were not sought for but were observed as ordinary incidents of every day life, the fact, however, that the writer has of late been pressed into service in certain official positions that bear special reference to tuberculosis, and the manner of its spread among our population, having quickened attention and sharpened scrutiny; and, furthermore, it may be asserted that anyone who keeps his eyes open may witness similar occurrences as he moves about in the round of his daily business.

It will be granted at once that the wetting of clean fingers with sterile saliva has no known relation to the spread of disease, but in the promiscuous multitude of the indicated acts who shall decide when sterile conditions obtain! Moreover the ban of esthetics, if not of hygiene, has from earliest times rested on the secretions of the mouth as Herodotus mentions that to expectorate in the presence of anyone was regarded by the Persians as an indecent act, while today among modern peoples the deepest affront, expressive of contempt or insult toward another, is conveyed or suggested by the salivary secretion. And even in a moral sense high authority asserts that it is what comes out of the mouth that defiles and not what goes into it.

That which was formerly regarded perhaps as at most a harmless or unpleasant personal habit has now been shown to be fraught with morbid peril, and the fact of the conveyance of disease from person to person through infectious oral secretions has been abundantly confirmed by professional experience, laboratory findings, inoculation tests, and clinical demonstrations.

Let it be further conceded that the owners of fingers have the undoubted right to insalivate these members or otherwise use them as they please, provided always that they do not infringe the absolute right of their neighbor to freedom from infection thus conveyed. As the fingers are the members above all others whereby the individual person comes into touch with the human world around him the obligation thus resting on their owner is a binding one; and this argument is equally cogent when reversed for the enforcement of individual self-protection, as, granting the owner's freedom from present disease, he nevertheless stands in danger of self-inoculation by pathogenic germs borne to his own mouth by contaminated fingers ignorantly or incautiously applied thereto.

The human carriers of the infections that especially center in the mouth are no doubt often uninformed as to their capacity for harm, and, at times, heedless or reckless when such knowledge is

possessed; and, as even the keenest and most watchful medical eye may not be able to discern the existence of danger at the moment of a casual or transient meeting, hence the necessity for wariness, precaution and avoidance of acts and things reasonably capable of communicating infection. However, the citation of observed facts and incidents in this connection will be more useful and convincing than abstract consideration.

Of all the tangible things that come into human hands the one that most closely touches the universal life of mankind is money, currency, and of its usually unclean condition, and probable influence toward morbid mischief in both coin and bill, no argument is needed. That it seeks strange places of hiding and comes from queer sources need hardly be suggested, but in support of this let some personal experiences be recited.

A year or so ago the writer was speaking with the treasurer of one of the large local trust companies in the latter's office which commanded a view of the space where patrons filled out their slips and made deposits. A considerable proportion of the depositors present were women and the treasurer directed attention to the number of them who would bend forward and extract their money from some unseen place and then proceed to the proper window to complete their business. He was asked whether this was a matter of common occurrence and he replied that it certainly was. As in this crowd all sorts and conditions of women were fairly represented it may be safely assumed that the practices pointed out were in no wise exceptional.

Again, at the shop of a biscuit company in St. Louis, which carries on a large retail trade, the writer observed the habits of the crowds of customers, and also the manner in which the saleswomen conducted their part of the business.

The buyers were of the most miscellaneous sort from well dressed women to wenches in tattered garments, and here too in a number of instances it was observed that recourse for cash was had to the same secret recesses that were drawn on at the banking house. The saleswomen each received the money paid for supplies, often wetting their fingers in their mouths while handling the goods, wrapping packages and making change. One tuberculous looking saleswoman at times swept the inside of her mouth with her forefinger and then at once resumed her duties with complacency. The money of newsboys, bootblacks, street sweepers and scavengers was handled in the same fashion, while a large part of the stock of bread, cakes, etc., was exposed to the fingering of any one who chose to do so.

A Federal post office is a center for the gathering of the most diverse kinds of people, foreigners and others, who frequent it to buy stamps, register letters, secure money orders and the like. Having observed in a large city of this country what was going on in one

of these divisions, a letter was addressed to the postmaster dated October 17, 1907, as follows:

"My Dear Sir:

For a considerable time I have had occasion to notice, in the conduct of a part of the business of the postoffice, certain features which in my opinion are decidedly prejudicial to public health on the part of those employed to serve public needs.

I refer to the habit which a number of your stamp sellers have of perpetually licking their fingers while engaged in selling postage stamps.

They are constantly handling money of the dirtiest description when making sales, and their fingers almost invariably visit their mouths before passing out the stamps leaving a smear on the latter, which the buyers in probably seven cases out of ten moisten with their tongues before using.

This practice is as unseemly as it is dangerous for there can be no doubt that tuberculosis, syphilis, diphtheria and other diseases—possibly cancers—can be and are conveyed from person to person in this way.

Furthermore, I have observed that the worst offenders in this respect on your force are the most sickly looking—whether because of this habit I would not now undertake to say.

If no other means of correction avails it may be suggested that those who indulge this habit be required to wear muzzles during business hours so that their fingers cannot reach their mouths; for if not diseased themselves they nevertheless constitute a medium for conveying to others infections carried by the foul money they handle—which often comes directly from unspeakable places."

This letter was signed by an official of the State anti-tuberculosis society, and was acknowledged with thanks and a promise to apply a remedy, but notwithstanding this it is to be feared that little betterment has actually been brought about.

Less than one month after the date of this letter one of the regular employes in this service died, the cause being reported as pneumonia following grippe. The deceased was a confirmed offender in the line indicated, and whether he acquired these diseases through the practices mentioned, or to how many others he may have conveyed infection of course can never be told.

Postmen are among those subject to indictment for this offense as, with many of them, it seems impossible to deliver mail without first visiting their mouths with their fingers.

Conductors on railroads and trolley lines are almost notorious in respect of their inability to make change or give seat checks or transfer slips without first beslaving their fingers—almost suggesting to many persons the sanitary necessity of providing themselves with tongs to receive objects thus tendered. A feature that may be mentioned in this connection is the frequency with which women may be seen placing bills or coins between their lips. In the experience of the writer no man has ever been observed to practice this habit, the exercise of this form of taste being reserved to members of the fair sex.

As an illustration of the capacity of paper money to absorb and carry vile or noxious substances mention may here be made of facts re-

lated by a medical friend to the effect that at a former time when this country was having a fit of financial epilepsy, such as has been recently witnessed, he withdrew some money in rather large bills from the bank and placed them in a safe deposit box where they remained undisturbed for some time. When taken out the bills gave off such an offensive smell that special means of deodorization were employed before they were fit for use. Whether in this instance the germs of putrefaction were in association with specific organisms of disease was not determined, but such facts as these are very suggestive as it is known that tests made by the New York Research Laboratory disclosed a swarming multitude of live bacteria on paper of this sort.

Cashiers and bookkeepers, in business concerns large and small, clerks, canvassers and the like seem very generally addicted to this habit. Even waiters in respectable eating places have been seen to wet their fingers in their mouths when handing around fresh napkins.

Men of character and standing in the professions are also at fault, members of the legal fraternity professionally known to the writer as having experienced luetic infection being some of the confirmed offenders—one has been observed in the reading room of a large club and not a leaf of a book or magazine would be turned without fresh contact taking place between tongue and finger.

In order to show that discretion should be observed in efforts to bring about better things in this respect a single further experience will be mentioned. A few years ago while the writer was bound for a health resort distant about one day's ride from St. Louis, as the train neared its destination a hotel agent entered the car and began soliciting patronage for his house, one hand holding a quantity of cards and folders which were distributed with a perpetual play of fingers to his mouth. When he finally reached me I told him at once that I was a physician, was already provided with a stopping place, knew the town well and the diseases for which many people went there for treatment and suggested, if he would permit me to say so, that all things considered, I believed he would make a better impression on the traveling public if he would refrain from licking his fingers when handing out literature. He said little in reply but returned a rather hard look and passed on. A few hours later this man died with his boots on, being shot to death on the same train by an officer of the law while resisting arrest. It developed that he was a desperado who almost terrorized the town, provoking quarrels and slaying his opponent when at a disadvantage. The deep breath of relief that went up from the entire community when it was known that he was safely dead was significant. This deponent also breathed more freely.

Objection may be raised to the proposition that danger to the public lies in the habit of finger licking, as herein pointed out, on the plea that competent proof is lacking to show such morbid incidence, that the lineage of a certain disease from carrier to victim cannot be certainly

established. Admitting that this particular link in the chain of evidence remains unsupplied through present inadequacy of scientific means, it may be remarked that neither is it possible to follow the identical infectious particle of tuberculous sputum carried by the air into the lungs of a potential victim of that disease, but nevertheless the consensus of experience, observation, experiment and medical judgment overwhelmingly favors the view that the principal conveyance of tuberculosis occurs in that manner.

Next to promiscuous spitting in the case of consumption it may be safely affirmed that finger licking is the most influential factor in its spread, but the pernicious influence of the latter is much the wider as within its range are embraced the list of diseases before mentioned to which might be added still others that are less common.

If that which is minute may be measured against the mighty, if things terrestrial may be compared with things celestial it may be recalled that astronomy teaches that there are stars nightly seen in our skies which are so far away that no known means exist by which their distances can be determined—mathematical knowledge stopping short here, as a base line constituted of the diameter of the earth's orbit around the sun (approximating 180,000,000 miles) affords no parallax, or measurable angle, whereby their stupendous distances may be calculated. Still, the light of these distant suns shines on our earth, their radiance is such that it may fix the gaze of a child even, their influence is seen and known but to compute their distances is beyond all human power. Yet to state this is not to deny that the time may come when such an achievement may be possible, just as it may become possible for pathogeny to trace, measure and identify the course of specific infection from the carrier to the destined victim even to the ends of the earth.

But sane reason and sound judgment do not demand such completeness of proof before notice shall be taken of threatened peril, and intelligent preparation made to guard against its consequences.

The natural history and clinical features of a number of diseases are fully known but whose specific causes have never been identified, and from the body of knowledge common to the medical profession, the logical, reasonable, inexorable conclusion has been reached that the secretions of the mouth and throat of those often in seeming health constitute a formidable source of danger evidenced by specific forms that are known to and demonstrable by the science of today.

The total of 3195 deaths in St. Louis, shown by the United States census report for 1900, from measles, scarlet fever, whooping cough, diphtheria and croup, influenza, tuberculosis, meningitis, laryngitis, bronchitis, pneumonia and tonsilitis—all more or less communicable by the oral fluids—together with the unknown number of non-fatal cases, demand an accounting and explanation, a proportionate mortality no doubt obtaining in other American cities, and it would appear to be an entirely reasonable assumption resting on all the circumstances, to at-

tribute a large share in their prevalence to the pernicious and unseemly personal habit herein pointed out.

In view of the foregoing the following propositions are submitted:

The specific organisms of serious diseases may be present in the mouths of persons who apparently are in a fair state of health.

The secretions from the posterior nares, throat and mouth supply a vehicle whereby the transfer of such organisms to other persons and things is effected.

Next to promiscuous spitting, the practice of habitual insalivation of the fingers by those harboring such organisms affords the readiest means of conveying infection to others.

Healthy persons may infect themselves by germs carried by their fingers into their own mouths.

Money, papers, books and other articles that are constantly passing from hand to hand have been found to carry the active germs of infectious diseases.

Employes in official life addicted to this habit, and who in the performance of their duties as stamp sellers, postmen, money order clerks, etc., are necessarily in contact with the public, should be deprived of their positions as thereby constituting a menace to the general health.

While the licking of their fingers by children is often attended with serious risk of infection this danger is greatly increased by the practice of the same habit by such adults as come into touch and relation with the general public.

Sanitary and medical condemnation of the practice of finger licking rests upon the proven fact that the bacteria of many of the most virulent diseases are often abundantly present in the secretions of the human throat and mouth, even when no outward evidence of danger appears.

INSANITY.*

BY G. WILSE ROBINSON, M. D., NEVADA, MO.

Insanity is a very broad term. It is applied to many varieties of mental derangements. The word comes from the Latin word *insanitas*, meaning unsoundness, and when applied to man, it means unsoundness of intellect. In some cases all of the faculties of the mind may be unsound, while in others there may be only unsoundness of the judgment, the reasoning faculty, or the will, etc. The insane man or woman has, to a greater or less degree, lost that property which distinguishes man from the lower animals, namely, the ability to think rationally.

Insanity is only a relative term, as there is no absolute sanity and no absolute insanity. According to some standards we are all more or less insane, and the reason most of us keep out of insane hospitals is because our sanity is of such a character that it does not interfere with the business and pleasure of others to a sufficient degree to cause us to be committed, and not because we are more sane than those who are in the hospitals.

Johnson says, "All power of fancy over reason is a degree of insanity. By this standard many poets, orators, political writers and speakers, some presidents, all professional gossips and many men and women in all walks of life are insane."

Many of the world's most eminent and useful members of society have been semi-insane, while many others have been on the borderland of insanity all their lives; among these semi-insane and borderland cases were many who were regarded as intellectual geniuses. Auguste Comte, a semi-insane French philosopher, says, "Madness is nothing else but great exaltation of the soul, and this great exaltation is necessary in order to do great things. He, only, enters into the temple of glory who has escaped the madhouse." Lucien Moreau says. "Equilibrium of the faculties does not, as a rule, lead to anything more than happy mediocrity. The tendencies of genius depress certain faculties and exalt others. There is in genius a certain neurotic element which gives it force and impulsion."

Time will permit of but a brief mention of some of the most noted semi-insane. Pascal from his earliest childhood could not go near water without being thrown into a fit of passion, saw visions all his life and died insane. The majority of Russian novelists of the nineteenth century, Gogol, Tolstoi, Garchine and Gorki, among others, were semi-insane. Many of the French intellectual superiors have all the symptoms of semi-insanity: Guy de Maupassant, Villemaine, Victor Hugo, Rousseau, Flaubert, Baudelaire, Zola, Balzac, Madame De Stael, Alexander Dumas, and many others. Among other noted semi-insane are classed:

*Read at the open meeting of the Vernon County Medical Society, January 1, 1908.

Schopenhauer, the great pessimist, Swift, the author, Hofman, the composer, Edgar Allen Poe, Thomas De Quincey, Haller, the celebrated physiologist, Newton, the astronomer, Zimmermann, Watt, Goethe, the poet, Frederick II., Schiller, the philosopher, Byron, the poet, and Swed-enborg, the theosophist. Darwin suffered from serious neurasthenia. Very few great composers and musicians have escaped the taint of insanity. Among the worst cases are classed Schumann, Danzetti, Chopin, Richard Wagner, Mozart, Beethoven and Rossini.

Lombroso and Gelineau cite as having been epileptic: Moliere, Julius Caesar, Petrarch, Peter the Great, and his son, Mohammed, Swift, Richelieu, St. Paul, Hercules, Ajax, Empedocles, Merachis, Macbeth, Socrates, Newton, Schiller, Mozart, Wagner, Madame Malibram and Charles V. According to Lombroso, the list of great men who have committed suicide because of mental unsoundness is interminable.

Accepting the conclusions of the authorities who have investigated the diseased condition of these notables mentioned, you can readily see that all insane persons are not harmful, and useless members of society; but, on the contrary, many of the so-called lucid semi-insane and insane have been of much social value and have often made a marked difference in the literary and artistic progress of their century.

Insanity is not limited to any class nor time; but it is contemporary with the beginning of man, and is found in the homes of the rich, the poor, the high, the low, the wise and the fools.

While it is of very ancient origin, yet we of modern times see a greater percentage of the world's population insane than those of any other time. For this reason, if for no other, there should be a greater interest in the subject on the part of the people of our time than of any other. In our own country it is estimated that out of every 300 inhabitants one is either insane or feeble-minded, and this number is increasing at the rate of 4 per cent annually. These 285,000 people must be cared for at an estimated annual cost to the country of \$85,000,000. Add to this the estimated producing power of this vast number that because of their disability must become non-producers, and we find that these conditions are costing us annually about \$200,000,000. While this is a large item it is small as compared with the sorrow and sadness that is caused by these conditions. Husbands are bereft of their wives, wives of their husbands, children of fathers and mothers, brothers and sisters, fathers and mothers of sons and daughters.

This enormous cost in money and sorrow does not have to be paid in equal proportion by all our people, yet none of us can escape responsibility for payment of part of it. There is no county that does not feel the cost of keeping its insane wards, nor is there a community that has not one or more homes saddened because of the affliction of insanity. One of the great problems that is crying out to the American people, as well as the people of the whole world for solution is, How to decrease the spread of insanity.

I believe the solution of this problem is in an education of the people on the conditions and causes of insanity.

The question naturally arises in the minds of all thinking people: What is insanity, and in what manner does a so-called insane man differ from a so-called sane man? As stated above, insanity is not absolute but relative, so is the definition of insanity relative. Conduct that would be regarded as insane in one person would not be so regarded in another. Conduct that would be considered insane in one community would pass without comment in other communities where the standard of conduct differed. If a person acts and talks in a manner altogether different from what we would expect from one of his training and education we regard him as being deranged or insane.

Insanity is often spoken of as a mental disease. In my judgment there is no such thing as a mental disease. I do not regard the mind as a physical thing to become diseased. I am a believer in the dualistic philosophy which holds that man is a dual being and has two realities, a physical reality, which is his physical body, and a spiritual reality, which is his mind or soul. During the so-called life of the physical body certain relations exist between the physical brain and the mind, and during this association and co-existence the mind is limited in its perceptions and manifestations by brain structure and functions. I believe thought is a transmissive function of the brain and not a productive function, therefore, if the brain fails of development, the mind being unable to perceive and manifest itself, we have a condition of idiocy. I believe the idiot has a mind but it has been unable to develop because of the imperfect brain. The insane man has perverted thought processes, not because his mind is diseased, but because his brain for some reason cannot properly perform its functions and his mind cannot perceive or manifest itself normally with his diseased brain.

The brain of man is a wonderful piece of mechanism. It is estimated to contain nearly three billion of nerve cells. These cells with their processes are called neurones, and they are so related and associated that while they are not continuous one with another yet an impulse generated in one can be transmitted to many others. The most of these cells are arranged over the cortex of the brain and are anatomically and physiologically divided into groups. Physiologically they are divided into three main divisions or areas, called sensory and motor projection areas, intermediate or memory areas, and association or thought areas. The projection areas are those areas where end the nerve fibres which carry impressions into the brain from the outside, such as the sensation of sight and hearing; also the areas where originate the fibres that carry impressions from the brain out, such as motor impulses to muscles. The intermediate areas are the memory areas, and the association areas are those areas which the mind uses to synthesize percepts into concepts or for rational thought processes.

If any of these areas because of injury or disease are unable to properly perform their functions we have different symptoms depending upon the area diseased. If one or more of the sensory projection areas are diseased we have partial or complete loss of one or more sensations. If the motor projection areas are diseased we have partial or complete paralysis. If the intermediate areas are diseased we have partial or complete loss of memory. If the association areas are diseased we have partial or complete loss of thought process. We always have perverted functions of one or more of these brain areas in insanity. If the perversion is of the sensory areas the patient has hallucinations or illusions. The patient who has hallucinations sees and hears imaginary objects or sounds. The patient who has illusions sees objects and hears sounds and misinterprets them. Of course there are hallucinations and illusions of the sense of taste, smell, touch, pain, temperature, etc.

Delusions are erroneous ideas and the patient holding them cannot be convinced of their falsity. These delusions or false ideas may be of personality, the patient thinking he or she is some one else. If their delusions of personality are exalted they may think themselves God, Christ, the Virgin Mary, the president, a king or queen, or any other noted person whom they may fancy. If the delusions are of the depressed variety they are some very low personage, a thief, the devil or one of his angels. The delusions may be of orientation or place. They think they are some place other than where they are, such as thinking the hospital is their home, a palace, heaven or hell. The delusion may be of condition, such as thinking they are sick when well, or well when sick, rich when poor, or poor when rich. They may be of conduct, such as thinking themselves better than they are or much worse.

Few patients are insane on all subjects and at all times. Some have acute attacks of insanity and soon recover, some have what is called circular insanity. These patients pass from exaltation to depression, from depression to sanity and then pass after a while through another cycle. Others have recurrent insanity, and alternate between sanity and insanity. Some have relapsing insanity. These patients are always insane but at times are worse than at others.

Some are insane at all times on many subjects while they are sane on others. In the condition known as paranoia the patient is sane on all subjects but one and his insanity would never be discovered as long as he does not talk of the one subject on which he is insane. In melancholia the delusions of unworthiness and depression are always present during the course of the disease. In two of the most common forms of degenerative insanity, namely, senile dementia, or dementia of the old, and paretic dementia, or general paralysis of the insane, there is usually a gradual increase of the symptoms until death intervenes; although in these conditions there may be temporary improvements, or stationary stages.

Of course most of the insane are like the drunken, they think they are all right and the others are insane, but some realize their condition. One of the most insane girls at Hospital No. 3 asked a short time ago if she was not insane. To see what she would say I told her no. She said, "You know I am insane and hopelessly so." Some of the shrewdest, brightest, wittiest and most delightful people I have ever known have been patients in insane hospitals.

The causes of insanity, like the types, are very numerous. First in importance among the causes is heredity. In at least 70 per cent of all cases of insanity there is an hereditary taint. This heredity is not so much an inheritance of insanity as it is of an unstable, badly constructed nervous system. There are many variations of heredity. It may be similar or dissimilar. In similar heredity the ancestor and offspring are afflicted with a similar form of insanity. In dissimilar heredity the parent may be epileptic, alcoholic or diseased in some form other than insane, and the offspring insane. The heredity may be direct or collateral. If direct it is directly from parent to offspring. If collateral, the inheritance may be through an uncle, aunt, or otherwise. The grandparent may be insane, direct offspring healthy and the grandchildren insane. This form of heredity is called *ativismus* or the return to an ancestral type.

Second in importance to heredity as a cause of insanity stands alcoholism. Alcohol causes insanity in various ways. Berkley, writer and recognized authority on the subject says, "Alcoholism and heredity are so closely connected that it is almost impossible to separate them. Pronounced alcoholism in the parents always means examples of mental disease and weak-mindedness in the children, provided the alcoholic tendency is not acquired somewhat late in life."

Bourneville, a French physician, reports on 2554 children admitted to two hospitals in Paris, all suffering from epilepsy, idiocy, imbecility and hysteria. He found that 1053 were the offspring of drunken parents.

Darwin and Morrell have said that the families of drunkards do not descend beyond the fourth generation.

Poor cooking and bad food are frequently causes of insanity, causing malnutrition of the body and starvation of the nervous system. The cause of so much insanity among our farmers and farmers' wives, I believe, is largely owing to the monotony of their lives, coupled with hard work and exposure. Many of them work fourteen to sixteen hours per day, and take no time for reading or social intercourse, and the lack of mental recreation, together with excessive overdrafts on the nervous system and an insufficient amount of sleep, are apt to cause brain deterioration; and they are often old men and women and frequently insane before their youth has passed. Undue stress or strain put upon those having an unstable and badly constructed nervous organization in any walk in life will frequently result in mental breakdown. The excessive

use of tobacco, especially cigarette smoking, frequently causes or assists in causing insanity, as does tuberculosis and many other wasting diseases.

Blows upon the head by injuring the brain may cause insanity as will fright and other forms of psychical shock. Worry over business reverses, disappointment in love and great religious excitement are all more or less frequent causes of insanity.

The cause of insanity is, in most cases, a very simple proposition. If you have a bank account and draw out more rapidly than you deposit there will come a time when your checks will no longer be honored and you are financially bankrupt. Nature has deposited in her bank to the credit of each of us a certain amount of nerve energy, some have much; others, because of bad ancestry or disease, have very little. There are very few of us who have not enough to supply our legitimate needs, but none of us have so much but that if we are profligate of our accounts and waste our nerve energy by vicious habits or too hard a struggle for success, there will come a time when our account is prematurely exhausted. Nature no longer honors our checks for more and nervous bankruptcy is inevitable.

Another very important predisposing and exciting cause of insanity is our system of education. Children are entered in our schools according to age and driven from grade to grade. The physically weak and those having badly constructed nervous systems are often forced, by unwise teachers and more foolish parents, to make unreasonable demands upon their nervous energy and the result is nervous bankruptcy, and often an incurable premature dementia develops.

The surrender of the will and judgment to passion, with violent outbursts of temper often lead to insanity, as the ravings of such a person differ very little from the ravings of a maniac. The most important treatment of insanity is the preventive treatment. It can not be prevented in every case, but in very many cases, even of those greatly predisposed to insanity, it can be prevented. Every person owes a debt to posterity which he or she should be made to pay if unwilling to do so, and as heredity is a most important factor in the causation of insanity I believe as a protection to posterity the law should be more concerned about marriages. Those strongly predisposed to insanity and epileptics should not marry.

Chronic alcoholics are insane and should not be permitted to marry, but should be permanently confined, or confined until cured, in an institution.

All habitual criminals and those strongly predisposed to criminality, are insane and should be accorded the same treatment, namely, prevented from marrying and permanently confined in an institution for the criminal insane.

Those related by blood or those with similar physical defects should not marry, as these defects will be accentuated in their offspring. There

are a great many people with symptoms of degeneracy or with physical defects, called stigmata of degeneration, that, while they may be able to pass through life sane, there is a strong probability that one or more of their progeny will be insane. Such people should be prohibited from marrying.

Of course there are many good and sentimental people who will say such laws will take away our liberties; but it is as much the duty of the state to prevent the poisoning of our society by a large birth rate of criminals, drunkards and other defectives as it is the duty of the state to prevent the poisoning of the people with impure food.

The only way to prevent alcohol in its manifold ways from causing insanity is to educate the people against its excessive use; and to confine and treat the chronic alcoholics who are already insane.

I believe our farmers and their families should have more mental recreation and should work shorter hours. All work and no play not only makes Jack a dull boy, but in many cases his father, mother, brothers and sisters insane. They should have literary clubs and read more. The old-fashioned spelling bee and country debating societies are excellent preventives of insanity.

The food supply is very important both as to quality and preparation; and a more intelligent selection and preparation of food would result in a better nutrition of the nervous system, both of the growing child and the adult, and would thus reduce the amount of insanity.

Medical inspection of schools is being practiced in some sections of our country, advocated in others, and is being opposed by many well-meaning but short-sighted people. The benefits to be derived from an intelligent and careful medical supervision are manifold. The defective children could be searched out and classified, and teachers and parents made aware of their defects, to the end that they could be corrected, if possible, and at least not made worse by an unwise system of education, or by too much education. Some parents become very indignant if told that their children are defective and predisposed to insanity; but I believe it is best that they know it. I feel sure that all parents would rather their children have less education than to be educated into a madhouse, as so many of our children are.

I have referred to stress and strain and the struggle for success as causes of insanity. It does not matter how hard we work so we take plenty of time for recuperation. During mental and physical activity, as a result of the chemical changes in the body, certain chemical substances develop that are poisonous to the nervous system. These chemical compounds by their action on the nerve cells lower their irritability so that they respond less readily to stimulation. This begets in us a sensation of fatigue, and all our senses are less acute. Another factor that assists in causing fatigue is the using up during nerve activity of available nutrient material which the nerve cells need for the production of nerve energy.

If we continue our labors and do not heed nature's call for rest, these poisonous substances, together with an insufficient amount of nutritive material, very materially interferes with the nutrition of our nerve cells, and, after a time, their structure is permanently impaired; the cells degenerate and it is not unusual for an attack of starvation mania to develop; followed frequently by degenerative insanity. It is absolutely necessary as a safeguard against insanity that all of us spend enough time at rest and asleep that the poisonous compounds can be eliminated and the nerve cells can get a supply of nutrition on hands against the next onslaught which will be made upon them by our labors. As to how much sleep is needed, or how much time for rest, that depends upon the individual. Some can eliminate poisons readily, others slowly. The nerve cells of some recuperate more rapidly than others. It will take six hours for some, and twelve or more for others. Enough is all we need and short of enough is insufficient.

Judicial strenuosity is a good thing, but in my judgment there is too much of the fool and fool-making variety in our country just now, and a vigorous application of the brakes would be a very safe and sane policy.

Modern scientific and humane medical methods have made much progress in the curative treatment of insanity. It has not been a great many years since the insane were abhorred, confined in damp, unsanitary dungeons, chained and shackled, without treatment and without hope. I regret to say that even in this enlightened age, for the sake of saving a few dollars, there are some county judges and other citizens, even in the state of Missouri, who would be willing, and express themselves as desirous of taking their wards out of the insane hospitals and sending them to the very correctly named poor farms, that are, in many cases, but slight improvements over the ancient dungeons. If some people could have their way the treatment would be about the same. I am very thankful that an intelligent and humane public sentiment will not permit of such treatment being accorded them.

I have endeavored in the foregoing remarks to show that the insane patient is a sick patient, has a sick brain and should be treated accordingly, and shown the same consideration and sympathy that other sick people receive. The prejudice against, lack of sympathy for, and ridicule of the insane by certain people bespeaks very eloquently of the superstition and ignorance of those holding such views. Insane hospitals are hospitals for the treatment of patients, sick in a peculiar way. The people confined therein are patients there for treatment, and they are not criminals, loonies, lunatics or fools. The hospitals are hospitals in the correct and broadest sense of the term, and not lunatic asylums, penitentiaries or boarding houses. Although I must confess that they are often so regarded and so conducted. There is a decrease of prejudice against them by a more intelligent public, but the prejudice is not dead.

Many patients are taken to insane hospitals by their friends, with the statement that they have kept them out as long as they could. The mistake they have made is in not taking them as soon as symptoms developed as every day an insane patient is without treatment or is improperly treated lessens his chances of recovery.

There should be no more prejudice against taking an insane patient to an insane hospital for treatment than there is against taking a patient suffering with appendicitis or any other surgical disease to a surgical hospital for surgical treatment, nor should there be any more stigma or disgrace attached to one patient than to another, nor should the door of opportunity be closed against one any more than against the other when they leave the hospitals restored. Despite the fact that there is some contrary testimony I know that insane patients can be and are being restored every day.

The public should be more fully informed of the work and needs of their insane hospitals by taking a more inquiring and intelligent interest in them. When their needs are known nothing should be withheld that will tend to increase their efficiency and make them more useful and scientific institutions for the care and restoration of the unfortunate sick who are sent to them for treatment.

The door of opportunity is, if not altogether closed against many of those patients in such hospitals, only slightly ajar, and is kept so by public prejudice. Many people are soon driven back to the hospital by public prejudice after being discharged as restored. There are many others who should be discharged, but because of the popular prejudice against them, cannot get a square deal outside and there is no home open to them but the hospital.

The unquestioned truth of these statements is a severe impeachment of our boasted Christianity and humanity. I have, however, unlimited confidence in the good sense and humanity of our people. Conditions are infinitely better than they were even one generation ago, and perhaps it will not be long before ignorance and his twin brother prejudice will be unknown, and intelligence, justice and humanity will rule us in our treatment of all.

INFANTILE PARALYSIS (ACUTE ATROPHIC PARALYSIS, ACUTE ANTERIOR POLIO-MYELITIS).*

BY V. A. BLES, M. D., ST. LOUIS.

Of the many diseases to which young children may be subject one of the most important ones is the affection which furnishes the title for this medical sketch. The nature of the disease, the seemingly sudden and always acute onset of the attack, the general disturbance, followed by complete helplessness, which may be transient but from which after-effects are apt to remain for life, seem uncanny even to medical minds. And, to make matters worse, we find ourselves unable to throw much light on the origin of the affliction, neither can we hold out a very hopeful prognosis beyond saying, that, except in rare cases, life is not endangered.

The Etiology: The Etiology of this disease, most frequently called Infantile Paralysis, is obscure. It is thought to be, and probably is, a specific infection. The grounds for this belief are its epidemic character, the fact that there is nearly always a history of more or less severe initial constitutional disturbance and its appearance at certain times. For we know that about four-fifths of the cases come during the hot months of the year.

As shown by its name, the disease is essentially one of childhood or rather late infancy. By far the greater majority of cases occur before the fourth year. It also occurs in adults but then generally takes on a subacute or chronic form. One reason for its frequency in very young children may be that their nervous systems are either not yet completely developed or at least have not yet acquired the stability and tone which the adult nervous system possesses. It used to be thought, especially by the laity, that there is some connection between this disease and the process of teething, but this is not true and the fact that the disease occurs in summertime, when teething often causes serious constitutional disturbance and the system generally possesses small power of resistance, must be regarded as a coincidence.

It has also been asserted that trauma and exposure to cold may be exciting causes but their influence is probably limited to aggravating the constitutional disturbance.

Heredity is but a very unimportant factor beyond furnishing a general family tendency to catch almost any disease.

It is worthy of note that most of the cases, which would point to a definite etiological factor, occur in adults, that many of these cases are doubtful and are either entirely neuritic or mixed with neuritis. This refers also to cases in which alcohol is thought to be the direct cause. Very few of the infantile cases run any but the usual course of the disease and, of outside influences, excessive fatigue, as in a child who

*Read at the St. Louis Medical Society, January 18, 1908.

has played too hard, is about the only one which might bring about or hasten the onset of the disease. Lues is not counted as an etiological factor to this disease.

The Pathology: The pathologic process underlying the condition under discussion is indicated by the anatomic name of the disease. We have, then, to do with an inflammation of the grey matter of the anterior horns of the cord, but why this process should almost exclusively attack that region no one can tell. Sometimes, especially in the subacute adult cases, we find signs of peripheral nerve-affection, but this is subsidiary to the spinal process.

It can readily be seen that an inflammation of any severity might easily extend along the fibres of the interstitial connective tissue and this is often found to be the case and we may find some of the neighboring white tracts or meninges involved. In a short time, however, these by-symptoms disappear and the disease shows the true polio-myelitis type. We find extravasation of leucocytes, hemorrhagic infiltrations, granular corpuscles spread between and encroaching upon intact nerve-elements, in short: an interstitial inflammation. In other cases we find the degeneration limited to the motor cells alone, thus rendering the process one of true parenchymatous inflammation. One of the features of the disease is the fact that the initial paralysis is always much more extensive than the permanent condition and this is readily explained by the fact that the involvement is fortunately always so much greater than the actual destruction, so that many intact nerve-fibres, rendered useless at first by encroaching cloudy swelling, resume their tasks after the initial febrile state has subsided, and many muscles and several limbs may be involved, but only some groups remain permanently damaged. In old cases which came to autopsy the affected horns have always been found to be actually smaller than the sound ones and degeneration has been traced down the motor nerves. Sometimes the adjacent lateral columns have been found very slightly affected but the posterior columns never.

In the muscles the fibres are found to have degenerated and have become smaller, narrower, of less bulk, and of granular appearance. The bulk of the entire muscle is lessened by connective tissue having taken the place of the muscle fibres. This tissue finally contracts and we find then a mixture of atrophied and healthy fibres of which we will have more to say when speaking of electrical reactions. Rarely deposits of fat are found to have taken the place of the muscular tissues, so that an outward appearance of bulk is maintained. The bones become less developed and the affected limbs shortened.

We see, then, that the process is one of inflammation, but sometimes the onset is not only acute, but actually sudden, denoting the presence rather of a hemorrhage into the grey matter of the horns, following the usual course of hemorrhagic extravasation; clotting, degeneration, par-

tial absorption, increase of connective tissue and even the formation of cavities which have frequently been demonstrated by the microscope.

The resume of the pathology is that the true source of infection is not known, neither is the reason why a certain part of the cord is invariably involved and not another.

The Symptoms: When we remember the generic name of the disease, Acute Atrophic Paralysis, the character of the cardinal symptoms is immediately revealed. For they are acute in onset; they are those of dystrophy and are rapidly followed by a loss of motor power. There is nearly always a fever with its usual concomitants, headache, malaise, anorexia, sometimes even delirium. When slight, this state may be overlooked or forgotten or ascribed to simple gastric or intestinal disturbance and its connection with the subsequent paralysis be ignored.

The common history is for a child to play hard one day, feel tired and feverish at night and to be paralysed the next morning. Sometimes the febrile condition precedes the paralysis by several days and, in severe cases, it may continue after paralysis has set in, but ordinarily the disease follows the usual course of fever which clears up, then loss of power, extensive at first, but undergoing a great deal of improvement; then permanent after-effects. It must be remembered that when the fever is severe, the child is apt to be kept very quiet for some time, so that the loss of power may not be noticed until the child is well enough to sit up in bed. It would be wise for all practitioners to carefully watch and instruct the parents to watch for signs of lost motor power in children who, while apparently perfectly well, are stricken down with vomiting and fever, for a great deal of good can often be accomplished in the acute stage by the application of hot fomentations to the affected regions of the cord.

Sometimes we find convulsions, especially in very young children, and occasionally they are so frequent as to denote severe cerebral disturbance which may even cause deep coma and death within 36 or 48 hours. In adults when the attack commences subacutely we may have such cerebral symptoms as giddiness and diplopia. Or again we may find signs of meningitis accompanying those of the myelitis, causing initial rigidity and great pain in the back, which clear up quickly and disclose the true nature of the affection. Where there is much tenderness and pain in the limbs on motion and in rest we may be almost certain that a neuritis is going on coincidentally and these are the cases which are almost invariably diagnosed and treated as inflammatory rheumatism.

The paralysis comes on rapidly, but varies much in its range. At first several limbs may be affected: both arms, both legs or three limbs. The trunk-muscles, neck-muscles, even those used in deglutition may be weakened, sometimes even the sphincters. Some of this clears up after a week or ten days and some idea can then be had of the amount of paralysis which will eventually remain, although improvement continues for some months. But we must not make our prognosis too hopeful as

there are but very few cases which do not show more or less permanent paralysis, atrophy and shortening.

The paralysis is a flaccid one and the muscles are soon without tone, while in two or three weeks wasting commences. The volume of the entire muscle is lessened, more or less distinctly as the child is thin or well covered with fat, until in some cases there seems hardly any muscle left.

This affection cannot be intelligently discussed without reference being made to the subject of electrical reaction, which is so important in the diagnosis and treatment. The atrophied muscles do not respond to faradism, neither do the motor nerves and this from actual nerve degeneration and those groups of muscle which are found to have lost electric irritability completely will remain permanently paralysed. Galvanic irritability which depends on the muscle fibres themselves is gradually lost as more and more fibres degenerate and ultimately disappear. What reaction is found is that of degeneration. In the partly paralysed muscles, if there be a sufficient number of healthy fibres, the reaction is lessened in quantity but remains the same in quality as normally and is increased and restored with the improvement in the muscles.

The deep reflexes, which depend upon the inherent muscular tone, are of necessity lost in the parts moved by the affected muscles. As in most cases there is some weakness of the large extensors of the leg, the knee-jerks are mostly lost, to return later on with the general improvement. In severe cases the lateral tracts may be involved, causing a paralysis which begins as a spastic one, with exaggerated reflexes, and ends as a true atrophic one after the inflammation has left the lateral tracts and confined itself to the anterior horns. The skin reflexes generally are diminished over the weak parts but soon become normal once more.

A little thought will make this disease one of the most easily understood affections of the nervous system. The infectious agent causes an inflammation which breaks into the motor paths and immediately causes loss of power. Then the mildly affected nerve-elements recuperate and some power is regained. But all power derived from permanently damaged cells is permanently lost.

The Diagnosis: This is generally quite easily made from the initial constitutional disturbance, followed by a paralysis which partly clears up, partly becomes permanent, flaccid in type, with changed electrical reactions, but undisturbed sensibility. In the beginning too much importance may be given to the gastric or intestinal symptoms or to the pain in the joints. When pains are not limited to joints, are spontaneous and unaffected by motion, some other affection than rheumatism must be thought of.

The chronic spinal affections, of course, differ in onset.

The disease might resemble an acute transverse myelitis, but only when it is unusually severe, bilateral and extends to the white tracts.

Here the age of the patient may help us, myelitis being rare in children. Then, poliomyelitis always attacks one of the spinal enlargements, transverse myelitis generally the dorsal region. In polio the symptoms quickly reach their height and then subside. In transverse myelitis they take much longer in reaching a climax and there is much more sensory disturbance.

The palsies of cerebral origin do not affect the electrical reactions. They are mostly spastic and the convulsions occurring at the onset are localized or unilateral, not universal as are those in a severe case of polio-myelitis.

The most frequent mistakes are made in believing the complaint to be a local affection, such as hip-joint disease or articular rheumatism. Here a careful examination will be sufficient as no actual paralysis, no loss of reflexes or changed electrical reactions will be found.

The diagnosis from multiple neuritis might cause difficulty on account of the loss of power, of knee-jerks and the reaction of degeneration in both and the fact that there may be pain and sensitiveness to the touch in early poliomyelitis. Still, multiple neuritis, although possible, is rare in children of the age at which they generally contract poliomyelitis. The acme is reached far more quickly in polio than in neuritis and the distribution of the neuritic affection is nearly always symmetrical. Then the fever, the exquisite tenderness of the affected nerves and regions to the touch, together with the pain on motion, are much more severe and prolonged in neuritis. In older people the presence of mental symptoms would rather point to neuritis, but it must be remembered that on one hand peripheral affections have been found concomitant with poliomyelitis and on the other hand have cases of multiple neuritis been complicated by spinal symptoms.

The Prognosis: The prognosis is good as regards life, but bad as regards complete recovery, for very few are the cases which do not show some permanent loss of power, some contractures or deformities. There may be danger to life if the initial constitutional disturbance is very severe, or when the cervical region is involved with interference of respiration. An intercurrent bronchitis may prove fatal when the trunk and respiratory muscles are involved. When the paralysis once rests there is little danger of its extending any further. As regards the extent of the permanent involvement (a question always most anxiously asked), no answer should be given before at least 7 to 10 days. Then the electrical examination will reveal the muscles which have lost faradic irritability and these will be permanently wasted. Even then it is much too early to predict how much improvement and how much permanent damage will result, but if at the end of three months much power is lost, recovery can be but slight. However, the presence of some little electric irritability indicates that the nerves are making an attempt at recovery. The Galvanic current stimulates the muscle fibres which are

intact, but which are kept from being exercised by the surrounding degenerated fibres. These can be strengthened and the limb restored to some degree of usefulness. We must always place before the child's relatives the probability of limbs becoming shortened or of the unantagonized muscles undergoing contractures with various kinds of deformities resulting.

The Treatment: In the beginning the treatment must be entirely general and at any time the treatment can only be symptomatic, as no specific remedy is known which will influence this unknown infectious agent.

If the true nature of the disease be detected in time hot applications to the spine may do much good. Cupping used to be indulged in on the grounds that the veins of the cord communicate with the post-spinal veins. Absolute rest, of course, and that preferably on the side, not squarely on the back. Calomel in small repeated doses as a derivative and such remedies as sod. salicyl. where there is a history of exposure to cold, or to counteract the infectious agent. Ergot and belladonna have been used, but, as the disease is to some extent a self-limited one, it is hard to say of just how much benefit they are. Rest should be carefully maintained after the acute stage has subsided, but relapses are extremely rare and this measure is most necessary if there is any tendency towards neuritis. After the acute stage a general convalescent treatment should be instituted; nutritious but light diet, tonics especially iron and quinine. Strychnine is of much value later on after the disease has become quite stationary and acts by increasing the tone of the nerve elements. Cod liver oil and iron are especially indicated where there are any signs of a rickety diathesis.

The question of electricity comes up sooner or later. Where nerve cells and fibres have been destroyed electricity is not only absolutely useless, but when the degenerative process is still active the use of electricity may augment it. When the nerve elements are only damaged and the muscle-force is only in abeyance, electric stimulation takes the place of voluntary impulse, exercising the muscle fibres and increases their contractility. The slightly damaged fibres are improved and the healthy ones are kept busy and the total result is increase in power. The difficulty lies in finding out just how much muscle is merely damaged, how much degenerated beyond repair and how much only wasted from lack of use. That is why electricity, continued beyond even reasonable length of times, still so frequently proves to be of benefit. It is only rarely that electricity causes so much pain as to force its discontinuance, but care should always be taken not to frighten a child by the application of too strong a current at first. A milder current applied more frequently will do just as much good. It should never be used before a month after the onset so as not to irritate the spinal cord.

I have found much good resulting from massage, preferably with

the hand smoothed with olive oil, following the course of the muscle. It increases the circulation which is always poor as shown by the cold blue skin. It also helps in keeping the muscles and tendons supple and preventing contractures. The extremities should be manipulated and the position of the joints corrected. No sitting up in bed before the back muscles are quite strong or curvatures will follow. No drawing up of the knees or the ham-string muscles will become contracted.

Later on mechanical contrivances must be thought of, but not until all improvement has ceased. They must be light and easily adjusted, according to what alterations or improvements in the shape or position of the limbs may occur and should be made only by expert mechanics. Gymnastics especially directed toward strengthening the weakened muscles are of great benefit and generally speaking this disease is one in which constant care and watchfulness, mechanical ingenuity, combined with common sense, will work wonders.

Metropolitan Building.

INFANTILE INTUSSUSCEPTION.*

BY J. D. BRUMMALL, M. D., SALISBURY, MO.

Whenever a portion of the bowel slips into another part of the bowel we have an intussusception. The upper portion of the bowel usually slips into the lower, rarely does the lower slip into the upper. It may occur in either the large or small bowel. The most frequent variety is the ileo-cecal, where the ileum slips into the colon.

When we have a full and complete intussusception we have three walls of intestine lying side by side or overlapping each other, with mucous membrane to mucous membrane and serous membrane to serous membrane. When the upper bowel slips into the lower a constriction soon occurs at that point of the invagination and it remains stationary, the amount or length of the invagination being increased by the lower bowel slipping up over, or swallowing the invaginated portion or constriction, which may extend the entire length of the colon and the invagination be felt in the rectum or protrude through the anus.

The most important elements in the production of intussusception are paralysis or distention of the lower bowel with gas, or from irritation and disease, accompanied by spasmodic contractions of the circular muscular fibres of the bowel above, which when constricted, readily drop into the dilated bowel below; thinness or weakness of the walls of the bowel or irregular contractions may be contributing causes, as well as the disproportion of size between the ileum and cecum.

When the invagination occurs the mesentery will be drawn in with the bowel, the circulation will be very much impeded, especially the venous return. Swelling and edema will ensue. The tunics of the invaginated portion of bowel are infiltrated with bloody serum, active catarrh of the mucous membrane is established, the peritoneum becomes highly hyperemic and an abundant exudation is poured out.

Adhesion between the middle serous coats takes place, seldom between the mucous ones.

The compression of the mesenteric vessels may induce necrosis and sloughing of the invaginated portion and thus restore the continuity of the bowel, or cause an opening into the peritoneal cavity.

Intussusception is the most frequent cause of obstruction in children, yet the lumen of the bowel may not be entirely closed and liquid feces be allowed to pass. The swelling and adhesion are strong factors in preventing reduction; the adhesions make it especially difficult after the fourth day, and may even prevent reduction in case of laparotomy.

Intussusception occurs more frequently in males. More than half of the cases occur during the first year of life, particularly from four to twelve months of age. The majority of cases occur in apparently healthy children.

*Read at the Fiftieth Annual Meeting, Jefferson City, May, 1907.

Obstruction and strangulation are the chief causes of symptoms. The general symptoms are those of shock. Marked prostration, pallor, anxious expression, muscular relaxation, cold extremities and cold perspiration and subnormal temperature.

Early we have restlessness or convulsions, later apathy, dullness, or semi-stupor. We have a sudden onset of the above with severe pain, there is no pain like it and there is a peculiar shriek with it; it is agonizing. It may become continuous or be intermittent. In the intermission, the little one may seem well and partake of food. The pain may cease before death owing to paralysis of nerve symptoms. It is located about the umbilicus and is accompanied with tenesmus, similar to acute dysentery but more severe and may result in paralysis of spincters, especially if intussusception is low down.

Vomiting accompanies the pain from the onset, and runs through all stages up to feculant vomiting; nausea is oftentimes present and persistent without vomiting. Nothing will relieve either the neusea or vomiting.

Vomiting would indicate obstruction rather than strangulation, and depends upon the completeness of the obstruction, the amount of mesentery invaginated and the degree of its compression. There may be one or two free evacuations from lower segment of bowel, followed by repeated evacuations of blood and mucus or pus. This may be mistaken for dysentery or diarrhea and deceive the physician; it should rather place him on his guard. We will have real hemorrhages in two-thirds of the cases, but if constipation is complete there will be no gas or feces pass.

Tympanites is rare, in fact bowels are usually flat and soft, especially for the first two or three days and when diarrhea is present. There may be some tympany if constipation is complete; it is not apt to be extensive unless there be some peritonitis.

Thirst is not as great as in other stomach or bowel troubles, and may be very slight.

The pulse is very weak and rapid. The temperature is subnormal and may continue so but will rise and may rise rapidly twenty-four hours preceding death.

A tumor is present in nearly all cases varying from the size of an egg to that of a child's arm. It is most frequently felt over the ascending and transverse colon, often at the descending colon and even in the rectum and through the anus, where it may be mistaken for prolapsus or hemorrhoids. It is smooth, moderately hard, of varying consistency, sausage shape, and is somewhat curved, with concavity toward the spine, and is freely movable. If the physician will make rectal examination and keep this condition in mind, he will seldom fail to recognize the trouble. Nearly all acute cases die in from three to five days if not relieved. If spontaneous reduction occurs the case is considered one of colic. By inflation and injection reduction may be accomplished within the first twenty-

four to forty-eight hours; not likely to after that time, owing to the adhesions.

In the use of either it is best to anesthetize the patient. Inflate with catheter and bellows, invert patient and manipulate the bowel at the time. Let tension of bowel be your guide as to amount of inflation. Continue inflation from fifteen to thirty minutes. When reduction occurs you will likely get a rumbling sound, a normal contour of abdomen, a change in expression and perhaps a gush of feces. You may have gotten reduction and none of the above symptoms, in which case you will insert catheter high to let air escape, palpate and judge by general symptoms. If you have failed try again in two or three hours, and follow inflation with injection, which you will use in the same manner as the inflation, using saline solution, milk or gruel. Use liquids hot for relaxing effect. Interrupt flow but maintain pressure. Symptoms of reduction with injection are not as pronounced as by inflation.

If it is an acute case and you have failed to reduce it with the above efforts, laparotomy should be performed at once. For the sooner it is operated the better the chance for recovery. If the patient has passed three or four days without symptoms of strangulation you may wait and use more effort at reduction.

When we have succeeded in reduction the symptoms may continue due to paralysis of bowel. If you succeed in getting reduction keep patient quiet and under an opiate for two or three days and on light diet; avoid cathartics. If you have a recurrence it is most likely to occur within twenty-four hours. If in all cases where we have sudden onset, severe or agonizing pain, persistent and uncontrollable vomiting or nausea, a soft and flat abdomen, and a tumor, with bloody passages and tenesmus, we should have intussusception in mind. We will find it, where we have heretofore failed, and many of our little sufferers will be relieved.

Now, gentlemen, I have not attempted to completely present the subject, but if I have presented it in such a manner as to impress the medical minds of Missouri so as to keep it before them, I know they will recognize it and many little sufferers will be relieved and saved to take their place among us, and the mission of this paper will have served its purpose.

MEDICAL EDUCATION, PRELIMINARY AND PROFESSIONAL.*

BY H. E. DUNLOP, M. D., CANTON, MO.

To one who now makes a survey of education along all lines and compares its present status with that of three or four decades ago, the great advance must appear phenomenal. All fields of human endeavor have been touched as it were by a magic hand; and never before in the history of the race has such eagerness been shown for the acquisition of knowledge. It is not astonishing, then, that the medical profession should have been markedly impressed by this wave of reform, and have taken upon itself the responsibility to see that a man should be thoroughly prepared before being thrown upon a community in the capacity of its medical adviser. This awakening commenced in earnest more than twenty years ago until, from a condition of no preliminary preparation and two years of professional study, we now have almost universally a high school certificate and a four years' course as essentials. At least, we have these requirements on paper, as shown in the prospectuses of the several schools; but from the general illiteracy of hundreds of graduates annually turned out I should judge that the rigidity of the requirements is so lessened that it is doubtful if as good men, in the main, are produced now as twenty years ago. In former times, men went into medicine for the love of it and the standing it would give them if they proved to be competent practitioners and gentlemen. A preceptor was a necessity, and he saw to it, as a rule, that the applicant for study was of a good sort morally and mentally. Today, however, too many enter the portals of the profession expecting a snap and who are utterly unprepared for the responsibilities of so onerous a calling.

Having introduced the subject, I will first take up preliminary preparation. It is fair to say that there is not a vocation in the world which calls for so efficient preliminary training as that of medicine. At present, a so-called high school course is sufficient. Of course such a requirement is better than nothing, but in many instances it means little more. Some of these schools permit students to graduate just because they have put in the time and in a great number of instances the teachers themselves are notoriously deficient. Indeed, it is too bad that in a State so generous in its educational appropriations, the people should be so imposed upon by too many incompetent teachers. I once asked a young lady graduate if she had demonstrated the fifth proposition of the first book of Euclid. She said no, she hadn't studied Euclid. I said, "Can it be possible that you graduated from your high school with no knowledge of geometry?" "Oh, yes, I studied geometry," she replied.

Then, the English that is used by some of these graduates is monstrous, showing inability or carelessness, or both, on the part of teachers

*Read at the Fiftieth Annual Meeting, Jefferson City, May, 1907.

and entire lack of ambition and pride in the student. No man should study medicine who cannot speak English correctly. Ours is deservedly a learned profession. But, oh my! what a travesty on learning many make it appear. If they can fool people as ignorant as themselves their desires would seem to be accomplished. To this class of pachyderms it is useless to talk, as only stringent rules will bring them to time. So, I say, we must see to it that applicants are sufficiently prepared before being allowed to matriculate. I might add, too, that a few lessons in general deportment might not be amiss as a factor in future success and character development. It might be asked me what I would consider just requirements for entrance examinations, as an amendment to the present act has lately increased them. In answer, they are still not high enough or sufficiently guarded as to their enforcement. My outline of a minimum requirement would be a certificate from a first grade high school such as will admit to the State University, the completion of the sophomore year at the State or other recognized university (the time being devoted to the elective studies of biology, chemistry, English, Latin, German and logic), and the presentation of a certificate of the completion of such a course to the State Board of Health to be passed upon. In this way no favoritism could be shown, the requirements would be fairly met and the medical colleges would be obliged to accept it as a minimum requirement. A few colleges now require this standard, and even higher. Of course the board could, if it desired, accept qualifications from any university of equal standing; or if a man could pass *equivalent examinations* at the university without attendance, he should be given that privilege. If such a preliminary curriculum were instituted and enforced we would not have the disgusting spectacle of recent graduates writing back to their professors of wonderful operations performed, the names of which they do not even spell correctly. Medicine has become a complex science. A man, to fathom and acquire a fair understanding of its intricacies, must have a good foundation upon which to build; the day having passed when one can use the plow and forge as a stepping stone to its mastery.

As to professional training, it should be as thorough as possible in all the branches. The great majority of schools require four years of from six to nine months each. The over-crowded condition of the profession makes a fifth year advisable and essential. There is now in the country one physician to every four hundred and fifty people, not counting the multitudes of irregulars that parade as osteopaths, christian scientists, magnetic healers, *et hoc genus omne*. Not only this, but the decrease in sickness must be considered. A few years ago contagious, infectious and miasmatic diseases were much more rife than now. The true physician has ever been the benefactor of mankind. All his work has been toward prophylaxis. His methods are given gratis to the people. He is constantly pushing from him the proffered emolument. This is right, and from the standpoint of humaneness, is as it should

be. But the doctor must live, must keep up a certain dignity, has books and expensive armamentarium to buy if he would give himself and his patients the best satisfaction. Now, all this means money and a good deal of it. We see that the number of patients is gradually decreasing. We cannot *increase* them. It follows, then, as the only solution, we are justified in taking means to reduce the output while we increase the quality of physicians. It is this superfluity of practitioners, too, which accounts for so much enmity not only in the rank and file but among the higher lights of the profession. I do not think I can be successfully contradicted when I say there are few communities in the United States where the physicians work in harmony. There are constant bickerings, back-bitings, jealousies, recriminations and actual hatreds. Perhaps it is only human that such a state of affairs should exist when each one is striving for his daily bread. A physician once said to me, "most of the time I could do all of the practice that is to be done in this place myself and not half try; still there are three of us, scarcely on speaking terms." This, proportionately, holds good to a greater or lesser degree in all places large and small. Most physicians have friendly humane streaks in them; by nature they are gregarious. What then keeps them apart but over-crowded conditions which breed enmity and ill will? Some may say, "we grant the profession is much over-crowded but many physicians do not wish to associate with men they know are not either their social or professional equals." This is undoubtedly true in many cases and therefore makes it more incumbent upon us to institute and enforce laws as above outlined. Even in the large cities it is very common to find eminent specialists, in the same line, the most rabid enemies. This, of course, is due to a baseless jealousy and should not be countenanced. Still, there are some men with whom it is absolutely impossible to be on good terms, however much one might strive. They are all smiles, smooth words and in for everything that is good while they are talking to you, but roast you unmercifully when you have gone. Fortunately the great law of compensation attends to such fellows so we don't need to bother our heads about them. A medical degree will not make a gentleman out of a scrub any more than you can make silk from cotton—no matter how much you mercerize, it remains but every day cotton. As an old adage has it, "you cannot make a silk purse out of a sow's ear." Let there be just enough physicians, and the greatest part of enmity and bickering will disappear. The manufacturing world points out a precedent for us in this respect in limiting the output of their goods to the requirements of the demand.

There are too many medical schools. There should be but one in the commonwealth of Missouri (instead of nearly as many as there are in the whole Russian Empire), and that in the largest center as the Medical Department of the State University. If Kansas City and St. Joseph must have medical schools to exploit their professional timber let them be of a post graduate nature. The professors will then be

helping instead of hindering the onward progress of their brethren. Some might object on the ground that one large school wouldn't do the work as well as several small ones. This objection could be overcome by section teaching and by a greater number of professional chairs, the occupants of which should be selected for their eminence in the special branches. It goes without saying that students are too often turned over to irresponsible and inexperienced assistants. Given such a school—its five years' study and the previously outlined preliminary requirements—and Missouri would rise to a professional grandeur unsurpassed in the world. Is not this "a consummation devoutly to be wished?" Of course, some professors would object, for selfish reasons, but the laws of progress are immutable and they must capitulate to the slogan "the greatest good to the greatest number." The extra professional year should be given up to clinics and the closer study of drugs and other therapeutic measures. It is a notorious fact that too many medical men are but slightly informed regarding the drugs they use. How many ever knew the habitat, the natural order or the botanical name of the plant? Years may make a man a little rusty along this line but he is all the broader and better for having known them. It is this lack that makes so many physicians routinists and prescribers of the wholesale nostrums put up by physicians' supply houses. These come to the doctor with the druggist's instructions as to their therapeutic indications and he uses them without a whimper. A physician should try to learn his patient's ailment by the aid of all scientific means at hand; he should know the physiological action of his drugs, or their active principles, and then he can intelligently prescribe. I think the profession, as a whole, is awakening to the evil this proprietary medicine business has caused in its ranks and that in a few years we will have little else presented to us than sera, pure chemicals and organic active principles. Where the latter cannot be isolated we will have the physiologically assayed extracts. It should rather fill us with chagrin when we realize the enormities of the impositions we have undergone at the hands of some even reputable pharmaceutical houses. The writer, being a practical pharmacist, has always had an aversion to proprietaries and therefore has never used more than three or four from the most reputable houses and whose formulæ were truthfully represented. Digestants *ad libitum* have been thrown at us that were not only incompatibles but absolutely inert. Is it not a reflection on the profession that there should be a demand for such things? The writer does not condemn every pharmaceutical so put out, for there are some good ones absolutely true to formula, of decided therapeutic value and dispensed to please the palate in a way that the average druggist would fall short. All this is germane to medical study and should be impressed upon every undergraduate. In the study of medicine today there is too much of a tendency to overlook objective and subjective symptoms and to fly to the laboratory for the diagnosis. The body is looked upon as a manu-

factory and storehouse of pathological products, so we fly to the test tube and microscope to find the nature of the toxin and microbe. Do not think I underestimate these methods; far from it. They are essential; but I do decry their exclusiveness. We need, and should practice, all the aids to diagnosis. Aside from the points I have mentioned, the curricula of the best medical schools contain all essentials of study.

In closing my paper, I wish to digress to ask what good are the State laws against illicit practice and counter-prescribing unless they are *enforced*? There are few practitioners who will take the initiative against a guilty physician or druggist. There can be no prosecution without a complainant. So there you are. It is the author's opinion that there should be a State inspector to whom all irregularities should be reported; he could then appear on the scene to investigate, prosecute and adequately punish offenders. Physicians would probably be willing to stand a small annual tax to see that their interests are protected and all laws pertaining to them strictly enforced. To my mind there is no more noble, painstaking, long suffering and underpaid vocation in the world than that of medicine. I love the noble profession, I want to see her advance against the myriad quacks and charlatans. I want to see her ever grow in dignity and usefulness that people may see her still greater triumphs and that the Hippocratic oath may finally mean to us what it meant to its ancient promulgator.

Journal

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PUBLICATION COMMITTEE:

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EDITORIAL

THE SPRINGFIELD MEETING.

The annual meeting will convene in Springfield on May 19th, 20th and 21st. As usual, the first day will be wholly occupied in the consideration of the business affairs of the Association at the meetings of the House of Delegates and the Judicial Council. The second and third days will be devoted to the reading and discussion of papers. The preliminary program contains the titles of almost one hundred papers. It is doubtful if all these papers can be read and discussed in the time allotted, but it is gratifying to know that the interest in the coming meeting is so general as to call forth such a large number of contributions to the scientific program.

The following committees have been appointed by the Greene County Medical Society: Committee on Arrangements: Drs. J. E. Tefft, C. E. Fulton, W. P. Patterson, G. W. Barnes, O. L. Peak, Lee Cox, J. C. Matthews, W. C. James and W. A. Camp. Reception Committee: Drs. W. F. Terry, J. R. Boyd, W. M. Smith, Wm. Rienhoff, B. F. Fortner, C. E. Woody, D. B. Farnsworth, R. L. Pipkin, H. S. Hill, E. L. Evans, J. D. Oldham, H. J. Ruyle, M. H. Mayfield, U. F. Kerr and D. U. Sherman, all of Springfield.

The Colonial Hotel will be headquarters and the meetings of the House of Delegates and the Judicial Council will probably be held in the hotel parlors.

INSPECTION OF BAKERY SHOPS.

The St. Louis Medical Society in its present state of excellent organization, has greater opportunities for broadening the sphere of influence of the medical profession of St. Louis than were ever before presented to it. We believe it will not fail, in the ultimate, to fulfill those objects for which, among others, it was organized, namely, "to make effective the opinions of the profession in all scientific, legislative, public health, material and social affairs, to the end that the profession may receive that respect and support within its own ranks and from the community to which its honorable history and great achievements entitle it;" yet we regret to observe that in respect to promoting the influence of the profession in "legislative, public health and material" affairs, there has been, lately, a noticeable lack of activity. Undoubtedly this inertia is more apparent than real; but in view of a decided tendency on the part of the daily press, recently manifest, to support measures which have the endorsement of the medical profession, such inaction might be interpreted as reflecting a spirit of indifference toward reforms which do not have their birth in the councils of the medical body, and have a deterrent effect upon the relations of an ally whose assistance is of the greatest possible influence in molding public opinion.

It has occasioned some surprise in us that recent developments in regard to conditions found in the bakeries in St. Louis, to cite a late instance, have not provoked a strong movement from the organized medical profession to remedy conditions which, if published accounts are true, constitute a menace to public health of far-reaching effect. We learn that an ordinance has been introduced in the Municipal Assembly, providing a scheme for the control of bakery and confectionery shops, but the entire enforcement of this ordinance is vested exclusively in the state factory inspector, thus relegating upon a state official duties which the charter of St. Louis distinctly delegates to the board of health. Now, the state factory inspector cannot render effective service in enforcing the provisions of a city ordinance, nor could he, having but one or two assistants, properly supervise the conduct of the numerous bakery and confectionery shops in St. Louis. The Board of Health, on the other hand, is a thoroughly organized body, with a corps of some fifty sanitary inspectors and employes specially fitted to execute its orders, and is clothed with authority to do certain specified things, among these being the "general supervision of the public health of the city and the enforcement of regulations, laws and ordinances in relation thereto." The proposed ordinance is faulty in respect to assigning certain duties to an authority other than the one named in the charter. Such a defection will at least cloud the validity of the ordinance and seriously interfere with its proper enforcement.

If our interpretation of this matter is correct, we believe the St. Louis Medical Society should become an aggressive party in opposing the passage of this ordinance, and should consult with the Board of Health in drafting a new ordinance to cover the requirements in such a way that they can be legally enforced. The daily press should be informed of the objections held by the medical profession to the bill now pending, and its assistance requested in securing the passage of the substitute.

(Since writing the above, we learn that the bill, as originally introduced, was killed in committee and that a new bill will be introduced by the health commissioner at the next meeting of the Council.)

THE ST. LOUIS SOCIETY FOR THE RELIEF AND PREVENTION OF TUBERCULOSIS.

The St. Louis Society for the Relief and Prevention of Tuberculosis has been highly complimented for its unique and effective methods of reaching the general public with the facts about tuberculosis and its prevention.

This Society has inaugurated something entirely new in the tuberculosis educational propaganda in its show window displays.

In December, 1906, an Exhibit of a Model Sick Room was shown at 408 N. Fourth street, which was complete in every detail and attracted a great deal of attention at that time. The purpose of this sick room was to show the public how advanced cases of tuberculosis could be treated in the home without endangering the family of the patient. Following the display of the sick room an exhibit of a Model Tent for incipient cases of tuberculosis was shown. This tent could be erected in the yard or on the roof of the patients' homes. The Society contends that with proper medical direction cases could be cured in St. Louis. To prove the Society's contention a young girl has occupied this tent all this winter, sleeping outdoors day and night in even the coldest weather, and has shown remarkable improvement.

During the summer of 1907 the Society gathered material for a small but very complete Tuberculosis Exhibit and on October 19th this exhibit was displayed in the show windows of the Wm. Barr Dry Goods Co., on Olive street, for one week. It attracted a great deal of attention here and so many people gathered in front of the show windows that the sidewalk was practically blockaded and the exhibit was moved to the show windows on Seventh street for the second week. Two large windows were devoted to the display on Seventh street.

During the winter the exhibit was shown at various places in churches,

halls, etc., in connection with lectures. Arrangements were made through the courtesy of the Scruggs-Vandervoort-Barney Dry Goods Co., to use the four Broadway windows of their old store at Broadway and Locust street, and the exhibit was displayed here for one month beginning February 24th. Thousands of persons viewed the exhibit in these windows during the month.

The exhibit was divided into three sections. First. "Tuberculosis is a Preventable Disease." This section occupied the corner window. In this section was displayed disinfectants and charts used by the City Health Department in fumigating houses. Pictures of dirty tenement yards and alleys, with a statement that a cleaner city would have a lower death rate and an appeal to all to work for a cleaner St. Louis. Pictures of houses and rooms where consumptives died with an explanation of how a consumptive can infect an old and dirty house by careless expectoration. Pictures of children in tenement houses and yards with an appeal to save them and a statement that every park and play ground, every new house built in the tenement district and the new public bath house, the work of the Pure Milk Commission, etc., would all help in the fight against tuberculosis. Pictures of new public school buildings and the municipal play grounds were shown. A picture of the new model tenement to be built in the tenement district was also displayed. A card showing pictures and newspaper clippings descriptive of the Society's Open-Air Campaign of Education during the summer of 1907 were also shown, samples of literature distributed in St. Louis and New York City were displayed and various "Don't Spit" signs and warnings were shown under the heading "Signs of the Times."

The second window devoted to Section Two, "Tuberculosis is a Communicable Disease," contained charts giving statistics of the death rate in St. Louis and elsewhere from consumption; pictures of dilapidated old tenements and bad housing, conditions that breed and spread tuberculosis, were also shown together with statistics of deaths in the tenement districts.

Two entire windows were devoted entirely to Section Three, "Tuberculosis is a Curable Disease." In this section were shown: Photos of the Missouri State Sanatorium for Consumptives; the new City Hospital in St. Louis; the Sea Breeze Hospital for Children, in New York, and pictures of child victims of the "Great White Plague." In the adjoining window was shown a Model Tent for the home treatment of incipient tuberculosis. In this window were also displayed pictures of patients living outdoors; a list of dispensaries and hospitals for the treatment of consumptives; and leaves from a patient's note book showing her remarkable improvement were also shown. On the floor of each

show window were displayed pamphlets and books upon consumption together with many cards upon which were painted pertinent sentences, such as the following: "We are fighting consumption, not consumptives." "If you know of a poor consumptive tell us, perhaps we can help him." "Consumption is curable if taken early. Do not neglect a cough." "How would you like to be treated as you treat some poor consumptives." "A consumptive is not dangerous. His dried spit is dangerous. Destroy all spit and there will be less consumption." "Cleanliness first, last and all the time."

The display of the exhibit in this show window attracted much favorable comment from physicians and laymen. It is believed that favorable results will be accomplished in the next few years in a decreased death rate as a result of the Society's educational campaign.

Letters have been received from other anti-tuberculosis organizations inquiring for facts about this display.

The spring meeting of the Southwest Missouri Medical Society will be held in Springfield, on Thursday and Friday, April 23rd and 24th, 1908, at 10 A. M.

Topics of great interest and value to physicians will be presented and each member of the society is earnestly requested and urged to be present and participate in the discussion of all subjects.

IN MEMORIAM.

CHARLES JORDAN ORR, M. D.

Charles Jordan Orr, Doctor of Medicine, was born in Louisiana, Pike County, Missouri, September 25, 1866, and died in St. Louis March 28, 1908. His parents, William Campbell Orr and Eliza Jordan Orr, were substantial members of their community. His father in his earlier life was a contractor, but in his latter years has devoted himself to farming. Dr. Orr received his preliminary training in the grammar and high schools of Louisiana. In 1885 he came to Saint Louis and in September, 1888, matriculated at the Saint Louis Medical College (now the Medical Department of Washington University), from which he graduated March 12, 1891. He became a contestant in the annual competitive examination for the position of interne at the Saint Louis City and Female Hospitals. His grade was such that he was awarded an internship in the City Hospital, a position reserved for the group of men ranking highest in the entrance examinations. He served in the Hospital during the year 1891-1892. From the Hospital he passed immediately to private practice in which he was actively and successfully engaged up to his last illness.

In October, 1896, he married Mary A. Caldwell, who, with a son, Isaac Caldwell, and a daughter, Isabel, survives him.

During the years 1892-1898 Dr. Orr was chief of the clinic for diseases of the nose and throat in the O'Fallon Dispensary of the Medical College. It is a matter of considerable interest that though the drift of his work tended strongly toward the nose and throat and a very attractive clientele gathered along this line, yet it was a well known fact that the broader and more vital problems of internal medicine always claimed his keen preference and held his unflagging interest.

During the last twelve years the Missouri Baptist Sanitarium was honored by having him as an active member of its staff of physicians. Two years ago he was elected as chief of the staff, which position he retained up to the day of his death.

In his essentially unobtrusive fashion, Dr. Orr interested himself in the work of the medical profession as developed in medical societies. He was president of the Medical Society of the City Hospital Alumni in 1900, vice-president of the Missouri State Medical Association in 1906-1907, treasurer of the St. Louis Medical Society May, 1905, to December, 1907, and member of the Council of the St. Louis Medical Society at the time of his death; a member, also, of the American Medical Association.

For some years prior to his death Dr. Orr was aware of the existence of a tubercular infection in his left apex. This had, however,

become quiescent, and, it was hoped, permanently. But more or less definite symptoms of flagging health in the latter part of 1907 and the early weeks of 1908 gave warning that all was not well. On January 22nd he left his work and went to bed a sick man, with disseminated pulmonary infiltrations that simulated pneumonia. With the passing of the days the hope that pneumonia was the existing condition grew fainter and the evidence that an acute tubercular infection, secondary to the sometime quiescent apex, was in active conflagration. During a period of twenty-five to thirty days a diurnal temperature of 105 F. was attained. Surely not in many years in the local profession has such widespread interest been aroused in a contest,—the aggressive, pertinacious contest, that our dear friend and colleague waged against his foe. On the street, in clinics, by the operating table, the question was heard again and again,—what is the news to-day of Dr. Orr. The slightest gain was hailed with delight, tidings of ill omen received with regret, while throughout the weeks of anxiety a genuine fraternal sympathy was strongly in evidence. It was hoped that sufficient gain might be won that would warrant a transfer to some bland southern spot where rest and recuperation would be secured. The patient coöperated most fully in the line of treatment laid down by his attending colleagues, notably in the plan of feeding.

It was observed that even in the days of delirium, when a period of consciousness occurred, that he would demand food. His contest for life, for his family's sake, won the heartiest sympathy and admiration. The end came March 28.

So modest, so unobtrusive was this successful physician, this Christian gentleman, that to many he was but a quiet man who serenely in his daily task, companionable in his intercourse with men, and courteous in demeanor, was but conforming to and in no essential differing from a thousand and one others of the same type. But the more discriminating few who had the good fortune of really knowing the man, a richer concept of his intrinsic worth was vouchsafed.

With full cognizance of the issue at stake and the odds against which he so signally fought, his last illness was characterized by obedience to orders, calmness of judgment, loving solicitude for his family, and, underlying all, a strong faith that his Master would do all things well.

Death worketh,
Let me work too;
Death undoeth,
Let me do.
Busy as death my work I ply,
'Till I rest in the rest of eternity.

Time worketh,
Let me work too;
Time undoeth,
Let me do.
Busy as time my work I ply,
'Till I rest in the rest of eternity.

Sin worketh,
Let me work too;
Sin undoeth,
Let me do.
Busy as sin my work I ply,
'Till I rest in the rest of eternity.

So lived and so died Charles Jordan Orr. The gap in the ranks is not yet filled, the pathos of it all is yet upon us,—he was faithful unto death;—but the work must be done, though a worker falls. He has not lived in vain,—we gird ourselves anew, and press forward.

A TRIBUTE OF RESPECT AND LOVE TO THE MEMORY OF
PROF. NICHOLAS SENN, M. D., OF CHICAGO. BY ONE
OF HIS PERSONAL FRIENDS, C. W. WATTS, M. D.,
OF FAYETTE, MO.

Prof. Nicholas Senn, M. D., LL. D., died in Chicago, Ill., on Thursday, January 2nd, 1908, of heart disease of only two weeks' duration. The malady was thought to have resulted from the high altitudes of South American mountains, during a recent trip made by him to that continent in one of his many visits to foreign lands in behalf of his noble profession in quest of the latest light on those diseases that our nation is fighting.

Dr. Senn was born in Busch, Canton of St. Gall, Switzerland, October 31, 1844, and came to America with his parents in 1853. He was graduated from the Chicago College of Medicine in 1868, and from the University of Munich in 1878. After practicing in Fond du Lac and Milwaukee, Wis., he moved to Chicago. In 1893 he was appointed Surgeon General of the Illinois National Guard. In May, 1898, he was made Chief Surgeon of the 6th Army Corps with the rank of Lieutenant Colonel of the United States Volunteers, and was chief of the operating staff in the field until September. Of his valuable services on the battlefields of Cuba and Spain every American surgeon is fully conversant. His rule of aseptic first dressings has gained for him a world-wide fame. He gave us in a small volume his experience of the various gunshot wounds that stands without an equal in surgical history. His free use of the best antiseptics opened up a new field, and every successful surgeon of to-day is following in the path he marked out so plainly.

Dr. Senn was Professor of Surgery in Rush Medical College, and at the many hospitals of Chicago, for years, and many physicians and surgeons of this county and state, and from Maine to Florida have enjoyed his personal instruction as well as witnessed his wonderful and successful operations in hospitals and at his various clinics.

We do no intentional injury to the character and reputation of any living or departed surgeon in America when we assert that Dr. Senn had no superior and but few equals in our noble profession. As a teacher, operator and writer he was to America what Koch was to Europe, whose

theory he embraced and practiced in a modified form. In 1891 he published his "Principles of Surgery," in which he taught and proved the regeneration of tissues, and that all forms of pus were foreign to the intention of the healing processes of nature; he also taught that incised wounds, if correctly treated, should heal without suppuration and by first intention, and that lacerated, punctured and contused wounds, if practicable, should be converted into incised wounds and treated as such. He tore off the mask that had so long blinded the profession as regards certain minutiae and exploded many false and erroneous theories by his brave success and the proofs he furnished by practical demonstrations on the living subject. His later works were on the joints and tuberculosis of the genito-urinary system; and his last work on practical surgery, a book of 1133 pages issued in 1901, stands without an equal on this continent. It is not only the leading text-book in America, but it is used across the water in the best colleges and universities.

His books of travels in Russia, Japan, Austria and many other countries, mark him as an author interesting and sensible. His life shows him to have been a practical Christian and a great friend of the poor and afflicted. He was the erudite scholar, the popular and successful teacher, the unsurpassed operator, the eminent author and, last but not least, the true and safe pioneer of modern surgery in America.

As a friend to the wide-awake doctor he had no superior. Our library has a complete set of all his works and many of his reprints, and we have enjoyed a monthly correspondence with him extending back for years, and have been helped out of many difficulties in diagnosis and treatment.

Who can estimate the value of such an unselfish life? Who can realize the loss to our profession?

Rest in peace, thou hero of American Surgery!

FIFTY-FIRST ANNUAL MEETING,
SPRINGFIELD, MAY 19-21, 1908.

PRELIMINARY PROGRAM.

Medical Section.

- Noah Adams.....Kansas City
 "The Care and Treatment of Nasal Rhinitis,"
- John AshleyBloomfield
 "Malpractice From the Doctor's Standpoint."
- W. R. Beatie.....Marshfield
 "Chronic Gastritis."
- E. G. Beers.....Springfield
 "The Doctor in Politics; or, His Civic Responsibilities."
- T. N. Bogart.....Excelsior Springs
 "Diabetes Mellitus."
- W. L. Brosius.....Gallatin
 "Conservatism in Medicine."
- Tinsley Brown.....Hamilton
 "Pneumonia."
- J. W. Clark.....Carterville
 "Echinacea Angustifolia."
- W. A. Clark.....Jefferson City
 "The Interpretation and Treatment of Headache."
- W. G. Cowan.....Sedalia
 "Irrational Use of Drugs in the Treatment of Disease."
- P. DonohooJoplin
 "Leukemia."
- J. J. Ferrell.....Owensville
 "Acute Articular Rheumatism; Its Cause, Mode of Infection and Treatment."
- F. W. Froehling.....Kansas City
 "Clinical and Experimental Experience in the Dietary Treatment of Hyperchlorhydria."
- Geo. W. Goins.....Breckenridge
 "Cerebro-Spinal Meningitis."
- S. A. Johnson.....Nevada
 "The Present Stand and Thought Regarding Opsonins."
- A. W. McAlester, Jr.,.....Kansas City
 "The Application of Tuberculin to the Eye as a Means of Diagnosis of Tuberculosis."
- J. A. McComb.....Lebanon
 "The State's Responsibility to Its Citizens; From a Medical Standpoint."

- W. A. McKelvey.....Minden Mines
 "Therapeutics."
- Ira A. Marshall.....Ironton
 "Treatment of Rheumatism."
- Franklin E. Murphy.....Kansas City
 "Angina Pectoris."
- Jesse S. Myer.....St. Louis
 "Examination of the Feces as a Routine Procedure."
- J. L. Ormsbee.....Springfield
 "The Physician's Relation to the Pharmacist, Practically
 Considered."
- O. L. Peak.....Springfield
 "The Passing of an Old Therapy."
- G. Wilse Robinson.....Nevada
 "Prophylaxis of Insanity."
- E. H. Schorer.....Columbia
 "Early Diagnosis of Tuberculosis and Use of Tuberculin in
 Diagnosis and Treatment."
- Chas. Shattinger.....St. Louis
 "The Treatment of Visceral Ptosis by Respiratory Exercises."
- J. S. Triplett.....Harrisonville
 "Endocarditis."
- Fenton B. Turck.....Chicago
 "Feeding Experiments on Animals Applied in Surgery and
 Internal Medicine."
- A. H. Vandivert.....Bethany
 "Sanitation of Churches, Public Halls and Assembly Rooms."
- L. M. Warfield.....St. Louis
 "Recent Tuberculin Tests: Their Importance for the General
 Practitioner."
- C. W. Watts.....Fayette
 "Ethics."
- G. W. Whitely.....Albany
 "Therapeutics and Its Relation to the Practitioner."
- C. R. Woodson.....St. Joseph
 "Syphilis of the Central Nervous System."
- B. H. Zwart.....Kansas City
 "Myocardial Degeneration; Prophylaxis."

Symposium on Tuberculosis.

- E. W. Schauffler.....Kansas City
 "Care of the Consumptive."
- T. F. Lockwood.....Butler
 "Public Education Against Tuberculous Invasion."
- A. W. McAlester.....Columbia
 "Universities and Colleges as Factors in the Educational
 Campaign."

- A. H. Hamel.....DeSoto
 "The Responsibility of the Board of Health."
 H. Wheeler Bond.....St. Louis
 "Methods in Force and Proposed Methods in St. Louis."
 O. H. Brown.....Mt. Vernon
 "Reports from the State Sanatorium for Incipient Tuberculosis."
 Solon Cameron.....St. Louis
 "Clinical Reports from Mt. St. Rose."

Surgical Section.

- Nathaniel Allison.....St. Louis
 "Congenital Dislocation of the Hip."
 R. F. Amyx.....St. Louis
 "Report of Case of Non-Malignant Stenosis of Pylorus of
 Two Years' Duration—Posterior Gastro-Enterostomy—
 Death Due to Reverse Peristalsis."
 Edmund A. Babler.....St. Louis
 "The Danger of Permitting Warts and Moles to Grow, Lest
 they Become Malignant: With Report of Twenty-five
 Illustrative Cases from the St. Louis Skin and Cancer
 Hospital."
 J. N. Barger.....Darlington
 "The Preparatory and After-Treatment of Surgical Cases."
 Willard Bartlett.....St. Louis
 "Personal Experience in the After-Treatment of Surgical Cases."
 T. J. Beattie.....Kansas City
 Title not announced.
 G. Wiley Broome.....St. Louis
 "Dr. Nicholas Senn: His Life and Character."
 C. E. Burford.....St. Louis
 Title not announced.
 O. Beverly Campbell.....St. Joseph
 Title not announced.
 N. B. Carson.....St. Louis
 "Cancer of the Rectum."
 Malvern B. Clopton.....St. Louis
 "Typhoid Perforation."
 A. H. Cordier.....Kansas City
 "Some Clinical, Pathologic and Surgical Phases of Stones
 in the Kidneys."
 H. S. Crossen.....St. Louis
 Title not announced.
 H. C. Dalton.....St. Louis
 "Rupture of the Bladder."
 W. B. Deffenbaugh.....St. Joseph
 "Treatment of Fractures of the Shaft of the Femur."

- Orville H. Dove.....Kansas City
 "Gall Stone Disease."
- J. W. Dreyfus.....Louisiana
 "Distinctive Features of Railroad Surgery that Peculiarize
 this Class of Injuries."
- Hal. Foster.....Kansas City
 "The Removal of Bodies From the Respiratory Tract and
 Esophagus by the Bronchoscope: With Report of Cases."
- W. J. Frick.....Kansas City
 Title not announced.
- Chester E. Fulton.....Springfield
 "Stricture of the Esophagus."
- G. W. Gale, Jr.....St. Louis
 Title not announced.
- Jacob Geiger.....St. Joseph
 "Hypernephroma."
- J. D. Griffith.....Kansas City
 "Subserous Hernia of the Abdominal Wall."
- Arthur E. Hertzler.....Kansas City
 "The Technic of Hysterectomy."
- Howard Hill.....Kansas City
 Title not announced.
- Frank Hinchey.....St. Louis
 "Eversion of the Uterus, with Expulsion of a Large
 Fibromyoma."
- Jabez N. Jackson.....Kansas City
 Title not announced.
- Ernest Jonas.....St. Louis
 Title not announced.
- R. Emmett Kane.....St. Louis
 Title not announced.
- Walter C. G. Kirchner.....St. Louis
 "Infections of the Knee Joint and Treatment."
- Bransford Lewis.....St. Louis
 Title not announced.
- Frank J. Lutz.....St. Louis
 "Empyema."
- Ernest G. Mark.....Kansas City
 Title not announced.
- Fritz J. Moenninghoff.....Kansas City
 "A Brief Consideration of Post-Operative Gas Distention
 of the Abdomen; With Suggestions for Prevention."
- C. C. Morris.....St. Louis
 "Modern Operations for the Radical Cure of Hernia."
- Frank G. Nifong.....Columbia
 "Differential Diagnosis Between Floating Kidney and
 Hydrops of the Gall Bladder."

- Geo. B. Norberg.....Kansas City
Title not announced.
- W. B. Outten.....St. Louis
"What is the Significance of Gaseous Products When
Found in Contused and Lacerated Wounds?"
- Louis Rassieur.....St. Louis
"Tuberculous Lymph-Adenitis of the Mesenteric Lymph-
Nodes."
- Francis Reder.....St. Louis
"Remarks on Intestinal Anastomosis."
- J. T. Reiley.....West Plains
"Burn and Treatment."
- Wm. Rienhoff.....Springfield
Title not announced.
- C. F. Roberts.....Kansas City
"Bladder Drainage."
- Ernest F. Robinson.....Kansas City
"Divulsion of the Scalp and Other Severe Scalp Injuries."
- St. Elmo Sanders.....Kansas City
"A Modification in the Technique of Abdominal Supra-
Vaginal Hysterectomy."
- John D. Seba.....Bland
"Personal Experience in Gun-Shot Wounds."
- M. G. Seelig.....St. Louis
Title not announced.
- William A. Shelton.....Kansas City
"Treatment of Fractures Adjacent to Joints: With Report
of Cases."
- W. S. Shirk.....Sedalia
"Appendicitis."
- Edward H. Skinner.....Kansas City
Title not announced.
- W. H. Stauffer.....St. Louis
"The Operative Treatment of Hemorrhoids."
- W. R. Stickland.....Rockport
Title not announced.
- Frank Joseph Tainter.....St. Charles
"Pyloric Spasms."
- N. F. Terry.....Springfield
"The Present Status of the Treatment of Cancer."
- Luther A. Todd.....St. Joseph
Title not announced.
- W. S. Wiatt.....E. St. Louis
"The Treatment of Diffuse Septic Peritonitis."
- W. H. Wiley.....Ridgeway
"Surgery in a Country Practice."

- Llewellyn Williamson.....St. Louis
 "Excision of the Lachrymal Sac as a Radical Cure for
 Chronic Inflammatory Processes Thereof."
 Leo. W. Wright.....Lowry City
 "Importance of Early Surgical Interference of Tumors
 of the Breast."

Symposium on Gall Stone Diseases.

- Pathology: Willard Bartlett.....St. Louis
 Symptoms: Roland Hill.....St. Louis
 Remote Consequences: Jno. C. Morfit.....St. Louis
 Treatment: C. M. Nicholson.....St. Louis

**DELEGATES TO THE FIFTY-FIRST ANNUAL MEETING,
 SPRINGFIELD, MAY 19, 20, 21, 1908.**

COUNTY.	DELEGATE.	ADDRESS.
Andrew.....	E. C. Bennett.....	Bolckow.
Audrain.....	R. W. Berry.....	Mexico.
Barry.....	A. S. Hawkins.....	Monett.
Alternate.....	D. E. Miller.....	Monett.
Barton.....	T. H. Duckett.....	Milford.
Bates.....	H. A. Rhodes.....	Foster.
Boone.....	A. R. McComas.....	Sturgeon.
Buchanan.....	{ P. I. Leonard.....	St. Joseph.
	{ L. A. Todd.....	St. Joseph.
Alternates.....	{ C. A. Good.....	St. Joseph.
	{ W. J. McGill.....	St. Joseph.
Butler.....	Victor Cadwell.....	Poplar Bluff.
Alternate.....	J. J. Norwine.....	Poplar Bluff.
Caldwell.....	W. T. Lindley.....	Hamilton.
Callaway.....	P. E. Williams.....	Fulton.
Cape Girardeau.....	H. L. Cunningham.....	Cape Girardeau.
Carroll.....	R. F. Cook.....	Carrollton.
Carter-Shannon.....	Wm. Fulton.....	Winona.
Cass.....	A. R. Elder.....	Harrisonville.
Alternate.....	W. F. Chaffin.....	Raymore.
Chariton.....	C. H. Temple.....	Rockford.
Alternate.....	M. B. Austin.....	Brunswick.
Clark.....	Frank B. Hiller.....	Kahoka.
Clay.....	J. H. Rothwell.....	Liberty.
Cole.....	J. L. Thorpe.....	Jefferson City.
Cooper.....	A. L. Meredith.....	Wooldridge.
Daviess.....	W. L. Brosius.....	Gallatin.
DeKalb.....	E. R. Stroup.....	Weatherby.

COUNTY.	DELEGATE.	ADDRESS.
Franklin.....	A. C. Brown.....	Moselle.
Alternate.....	J. P. Dunnigan.....	Sullivan.
Gasconade-Maries-Osage..	John J. Ferrell.....	Owensville.
Gentry.....	J. W. Conrad.....	Albany.
Alternate.....	J. H. Barger.....	Darlington.
Greene.....	C. E. Fulton.....	Springfield.
Grundy.....	D. W. Coon.....	Trenton.
Harrison.....	G. E. Gwinn.....	Bethany.
Alternate.....	F. H. Broyles.....	Bethany.
Henry.....	J. R. Compton.....	Clinton.
Holt.....	B. T. Quigley.....	Mound City.
Alternate.....	W. C. Proud.....	Oregon.
Howard.....	V. O. Bonham.....	New Franklin.
Alternate.....	U. S. Wright.....	Fayette.
Howell.....	J. W. Bingham.....	Pottersville.
Iron.....	John Q. Adams.....	Bellevue.
Jackson.....	{ Eugene Carbaugh.....	Kansas City.
	{ A. H. Cordier.....	Kansas City.
	{ O. H. Dove.....	Kansas City.
	{ C. Lester Hall.....	Kansas City.
	{ Jabez N. Jackson.....	Kansas City.
	{ J. P. Kanoky.....	Kansas City.
Jasper.....	{ R. T. Sloan.....	Kansas City.
	{ J. D. Pifer.....	Joplin.
Alternate.....	Wm. H. Lanyon.....	Joplin.
Jefferson.....	A. H. Hamel.....	DeSoto.
Alternate.....	J. E. Jones.....	Hillsboro.
Johnson.....	M. P. Shy.....	Knobnoster.
Knox.....	A. R. Wilsey.....	Hurdland.
Laclede.....	J. S. McComb.....	Lebanon.
Lawrence-Stone.....	A. H. Madry.....	Aurora.
Alternate.....	J. B. Fleming.....	Aurora.
Linn.....	F. W. Burke.....	Laclede.
Livingston.....	W. L. White.....	Springhill.
Madison.....	F. R. Newberry.....	Fredericktown.
Marion.....	Thos. Chowning.....	Hannibal.
Alternate.....	R. H. Goodier.....	Hannibal.
Miller.....	Frank DeVilbiss.....	Eugene.
Mississippi.....	H. L. Reid.....	Charleston.
Moniteau.....	W. R. Patterson.....	Tipton.
Nodaway.....	E. L. Crowson.....	Pickering.
Pettis.....	H. B. Cole.....	Sedalia.
Phelps.....	S. L. Baysinger.....	Rolla.
Pike.....	D. M. Pearson.....	Louisiana.
Platte.....	A. S. Herndon.....	Camden Point.
Putnam.....	Jas. A. Townsend.....	Unionville.
Randolph.....	G. O. Cuppaidge.....	Moberly.

COUNTY.	DELEGATE.	ADDRESS.
Ray.....	Herman S. Major.....	Hardin.
Alternate.....	Jas. W. Smith.....	Richmond.
St. Clair.....	W. E. Bell.....	Osceola.
Ste. Genevieve.....	G. M. Rutledge.....	Ste. Genevieve.
St. Louis.....	W. H. Townsend.....	Maplewood.
St. Louis City.....	J. M. Ball.....	St. Louis.
	Geo. W. Cale.....	St. Louis.
	M. B. Clopton.....	St. Louis.
	W. H. Deutsch.....	St. Louis.
	Wm. Engelbach.....	St. Louis.
	Davis Forster.....	St. Louis.
	R. M. Funkhouser.....	St. Louis.
	W. W. Graves.....	St. Louis.
	Joseph Grindon.....	St. Louis.
	F. L. Henderson.....	St. Louis.
	Roland Hill.....	St. Louis.
	B. M. Hypes.....	St. Louis.
	F. J. Lutz.....	St. Louis.
	W. B. Outten.....	St. Louis.
	Carl Barck.....	St. Louis.
	L. H. Behrens.....	St. Louis.
	H. C. Dalton.....	St. Louis.
	O. H. Elbrecht.....	St. Louis.
	Geo. Homan.....	St. Louis.
Alternates.....	W. C. Kirchner.....	St. Louis.
	Bransford Lewis.....	St. Louis.
	W. G. Moore.....	St. Louis.
	H. L. Nietert.....	St. Louis.
	Louis Rassieur.....	St. Louis.
	R. E. Schlueter.....	St. Louis.
	H. W. Soper.....	St. Louis.
	A. Ravold.....	St. Louis.
	A. E. Taussig.....	St. Louis.
Schuyler.....	J. B. Bridges.....	Downing.
Scotland.....	G. A. Foster.....	Memphis.
Shelby.....	Wm. Carson.....	Shelbyville.
Stoddard.....	Edward Moore.....	Bloomfield.
Alternate.....	A. D. Hill.....	Dexter.
Vernon.....	G. Wilse Robinson.....	Nevada.
Webster.....	W. J. Rabenan.....	Fordland.
Alternate.....	E. M. Bailey.....	Elkland.
Worth.....	E. P. Nesbitt.....	Sheridan.

The above represents the list of delegates reported to date of going to press. We urge those counties not represented in the above list to elect their delegates as soon as possible and forward the name and address of the delegate to the State Secretary.

CORRESPONDENCE

[Editor's Note.—We have been asked by Dr. Geo. Homan to publish the following correspondence, which is self-explanatory.—Ed.]

ST. LOUIS, February 12, 1908.

William E. Sauer, M. D.,

President Medical Society* of City Hospital Alumni,
St. Louis.

Dear Doctor Sauer:

Under existing arrangements between the Medical Society of City Hospital Alumni and the medical periodical which prints its proceedings, it is a requirement, as understood by me, that papers read before that society as a part of its scientific work shall be handed to the secretary for publication in the said "official journal," this being a part of the agreement between the principals—a proviso being inserted by which the arrangement may be terminated by either party giving notice covering the last month of the year.

When I read my paper before the society on the 6th inst. I did not conform to this custom or requirement for the reason that recently I had been carefully scanning the advertising columns of the periodical in question, and found not less than twenty-five proprietary preparations and nostrums displayed therein, and which products are not included among "New and Non-Official Remedies" tentatively approved by the Council on Pharmacy and Chemistry as published in the Journal of the American Medical Association for February 1, 1908.

Presumably their omission from that list signifies a lack of pharmaceutical merit or therapeutic value as judged and decided by the only competent court officially constituted by the organized profession for that purpose. This body has built a highway and set clear lights burning across what a few years ago was a quagmire in which the profession helplessly floundered, and for such light and deliverance every consistent member of the American Medical Association owes thanks and loyal support in further works to the same end.

This observation is pertinent for the reason that the publisher of the journal in question is a physician in presumed good standing in his local society, and by that fact pledged professionally to not only advance the just efforts and aims of the body mentioned, but to refrain from acts calculated to discredit such work or to encourage among physicians any departure from the tests and standards declared by the council and approved by the Association. This is a matter that touches the honesty and good faith of the profession, for without clean hands and clean skirts how can the local societies, the state associations, and the national body

with good grace wage war on practically the same sort of advertising in the non-medical press?

The status of medical men holding membership in the American Medical Association, who are publishers of such journals and responsible in a business sense therefor, is different from that of all other classes of publishers, being thereby amenable to discipline, and their good professional standing is bound to be sharply challenged because of the dual role assumed, and by reason of an attitude that does not square in morals with the purposes of the profession as repeatedly and officially declared. In such cases the dividing line between the claim of the counting-room and that of the consultation room must be extremely difficult to locate, for all human experience shows that no man can serve two masters whose interests lie at opposite points of the compass.

These strictures apply to many other medical publications whose appeal for support is to the organized profession, and without whose countenance they could not live, but whose advertising pages are nevertheless an affront to medical rectitude, and through vaunted fakes and frauds a befoolment of sound knowledge and sane progress—surely there is enough that is clean, informing, desirable and honest to fill the advertising columns of every journal worthy of life at the hands of a profession whose mark and aims must ever be set higher and higher if it is to live its true life without reproach; and it was the indicated action of physician-publishers, and the open derogation of ordained professional standards and principles, which led to the withholding of the paper before mentioned.

The question whether in the light of all the facts I shall be compelled to yield it, is respectfully submitted to the society for decision, and such decision will be respected by me—if it shall be adverse to my position as stated herein, then the request will be made that the journal shall be required to publish this letter in its entirety in the same number in which the paper appears, and as a part of the proceedings of the society.

The underlying moral question is a weighty one to the profession and may become a burning issue, and while the society of which you are the head has no official relation to the American Medical Association, still a great many of its members belong to the organization which does stand locally for that body, and it can hardly be thought that the ethical standard of one would be lower than that of the other; and, consequently, no uncertain sound should be given forth as the ultimate demand for accounting and quittance upon those who transgress may yet be voiced as of old: Choose ye this day therefore whom ye will serve, God or Mammon!

Very truly yours,

(Signed) GEORGE HOMAN.

A copy of the above letter was sent to Dr. George H. Simmons, editor of the *Journal American Medical Association*, who replied as follows:

Dr. George Homan,
St. Louis, Mo.

Dear Doctor Homan:

I thank you very much for your kindness in sending me a copy of the letter you wrote to Dr. Sauer, President of the Medical Society of the City Hospital Alumni. It certainly is a splendid letter and I hope the results will repay you, which I am sure they will. While the immediate results may not be noticeable, like every other effort in the right direction, it will help on the cause. It will certainly make the members think, if it is read at the meeting, which it will be, of course.

I know a great deal about the medical journals of this country, and to me it is scandalous that the profession has been putting up with some things as long as it has. We have in this country between 275 and 300 medical journals, so-called; probably as many as are in the whole world outside of the United States. Many of these journals are owned by business firms, who have no interest whatever in medicine, except the money they can make out of it.

To-day, there is hardly a medical journal in which one could publish an article attacking proprietary medicines, unless the article was general in character and did not refer to any specific proprietary. One of the greatest evidences of the need of a change in medical journals is the fact that outside of the *Medical World*, one or two of the other so-called independent journals and three or four of the state society journals, none has re-published or called attention to any of the exposés made by the Council. If they have said anything about it (the Council) at all, they have done so in a critical spirit. Every doctor must know that some of the things we have shown up are of definite interest to every practicing physician in the country, and had the medical journals been published in the interest of physicians, rather than in the interest of the advertisers, this disregard of what has been going on would not have taken place.

Much has already been accomplished, but more is yet to be done and I am glad that such men as you are coming forward and doing that which comes to hand in your own sphere, in spite of the fact that in doing so you will probably be criticised by certain interested parties.

Very truly yours,

(Signed) GEORGE H. SIMMONS.

COUNTY SOCIETY NOTES

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

The Cape Girardeau County Medical Society held its regular monthly meeting at Cape Girardeau, March 6th.

Dr. Hays was appointed national legislative committeeman.

Dr. Schulz read a paper on "Coxalgia." Dr. Porterfield's subject was "Tuberculous Adenitis." Both papers showed care and study in their preparation and brought out a good discussion. It is hoped that they will appear in the Journal.

Dr. Statler wrote a paper on "Pott's Disease." In his absence the secretary read the paper.

Dr. R. P. Dalton was elected a member.

Adjourned to meet at Cape Girardeau, April 3rd.—E. H. G. Wilson, M. D., Secretary.

CHARITON COUNTY MEDICAL SOCIETY.

The Chariton County Medical Society convened in Salisbury, on March 12th, 1908. There were present seven members.

A good clinic was presented by Dr. Welch and the patient examined by all members present, followed by a discussion of the case. The reading of Dr. McEuen's paper on "Hysteria" was deferred until our next meeting.

Adjourned to meet in Brunswick on Thursday, April 9th, at 3 o'clock p. m.—C. A. Jennings, M. D., Secretary.

GASCONADE-OSAGE-MARIES COUNTY MEDICAL SOCIETY.

The Gasconade-Osage-Maries County Medical Society will hold its next meeting April 21st, in Owensville. This meeting will be of special interest to physicians of this part of the state, as an effort will be made to form a Hospital Association for the purpose of conducting and maintaining a Gasconade County Hospital.

A banquet will be held in the evening, in which the public will take part.—John D. Seba, M. D., Secretary and Treasurer.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF FEBRUARY 28, 1908.

Drs. J. P. Wright and C. S. Neer were elected to membership in the society. Dr. D. S. Standard was received by transfer card from the Laclede County Medical Society.

President Coffelt announced committees as follows: Committee on

Program and Scientific Work, Drs. J. R. Boyd, J. E. Dewey and S. W. Tickle; Committee on Public Policy and Legislation, Drs. W. P. Patterson, W. M. Smith and C. E. Woody; Committee on Library, Drs. J. P. Ralston, E. L. Evans and A. F. Willier.

In accordance with constitution and by-laws of State Association, President Coffelt appointed the following named committees to assist the State Association at the annual meeting: Committee on Arrangements, Drs. Tefft, Fulton, Patterson, Barnes, Peak, Cox, Matthews, James and Camp; Reception Committee, Drs. Terry, Boyd, Smith, Rienhoff, Fortner, Woody, Farnsworth, Pipkin, Hill, Evans, Oldham, Ruyle, Mayfield, Kerr and Sherman.

Dr. T. A. Coffelt, the newly elected president, read a very interesting and instructive address, wherein he outlined the work of the society for 1908. He said, in part, as follows:

"With your coöperation I wish to make it a great honor to belong to this society because of the scientific work, the driving of medical pretenders out of this county, the fraternal feeling, and above all the recognition and esteem in which it is held by the public as a society promoting scientific, medical and sanitary knowledge and skill.

It is the duty of this organization to take some action in securing proper sanitary and hygienic measures for the public welfare of our city, as in our sewage system, thoroughfares, markets, schools, water supply and dairy products; we should have an active local board of health to advise our law makers. Until this society acts with energy along the lines pointed out I do not believe it has fully discharged the obligations it sustains to the public.

There is nothing that will add so much interest and enjoyment to our meetings, as a kindly fraternal spirit manifested towards each other; this will do more to smooth out the rough places in a doctor's life than almost anything else. There should be no place for a cynical and fault-finding doctor in our medical economy."

Dr. Wm. Rienhoff made a short address on the relation of the society to the public.

Dr. J. A. B. Adcock, of Warrensburg, Mo., secretary of the Missouri State Board of Health, was present and made a short talk about the work the board was doing and promised their assistance in the prosecution of illegal practitioners.

MEETING OF MARCH 13, 1908.

Dr. J. S. Sayres was elected to membership in the society. Dr. Farnsworth reported two interesting cases of a bone-like substance being found in the back part of the eye. Dr. Camp discussed the cases.

A general discussion ensued, in which Drs. Coffelt, Smith, Terry, Dewey, Woody, Fortner, Camp and others took part, as to the advisability of the society taking up some post-graduate course or other method of scientific work. On motion the Committee on Program and

Scientific Work was instructed to formulate a plan and report to the society at its next meeting.

Dr. Wm. Rienhoff read a very interesting paper entitled "Medical Creeds." He said that starting from the remarkable coincidence of the phenomenal growth of the true medical science and art on one side, and the startling spread of medical fads and charlatanism on the other side, the writer tried to find a reason and an explanation for such a condition of affairs by taking a historical review of the origin and gradual development of medicine. Its three sources, the demonstrative, rationalistic and the empirical views and practices of medicine, have all had their beneficial influences upon medical development, when applied in the right manner, and their detrimental influences when applied wrongly. Fads in medicine of the present day may be directly traced to the persistence of the three sources in their wrong application.

The increase of known facts, mainly through observation and experiments coming under the scope of physiology in normal and pathological conditions, and verifying those facts in the sick room and through scientific research, strictly adhering to the principle first laid down by Hippocrates, must be the aim of medical investigation from now on. Only so may we hope to come nearer to the coveted goal—the full understanding of the vital processes, both in health and sickness, and the true therapeutic means of influencing the pathological conditions.—J. L. ORMSBEE, M. D., Secretary.

HENRY COUNTY MEDICAL SOCIETY.

The Henry County Medical Society met in regular session in the county court room on Wednesday, March 11th, 1908. Fourteen members were present.

Dr. C. W. Head gave his treatment for scarlet fever, which he considered to be somewhat different from that usually pursued. Having read of a case in which a strong solution of antiseptics was used topically, he thought out and used the following manner of treatment: As soon as the rash appeared the patient was washed with a 1-1000 solution of bichloride of mercury; in 24 hours had patient well greased with vaseline and washed with warm water and castile soap, then applied the bichloride solution. This was repeated every day until the desquamation had passed. By so doing he had prevented the desquamation and subdued the itching that always attended previous cases. He used internal medication at the same time.

Dr. J. J. Russell thought well of Dr. Head's manner of treatment. Dr. W. W. Gibbins said the bichloride would be a good application. The treatment appealed to him as a splendid idea. He had used a strong solution of carbolic acid as an application to allay the itching with good results. Dr. Jno. W. Britts had not used bacon rinds, as his father before him had done, and did not like to use either of the solutions spoken of for fear of some bad after effects. Dr. A. J. McNees said all of the dis-

charges should be taken care of the same as from a typhoid fever case, as infection could come from them. He thought Dr. Head's idea a splendid one. Dr. Douglass called attention to the fact that the blood would always throw out material to act as a dam to absorption of any application in all exanthematous skin affections.

Dr. Head in closing said he found the free use of the solution allayed the itching.

Dr. Gibbins reported a case of a woman who had come to him some 10 years ago, suffering from a profuse hemorrhage from the vagina. Upon examination he found a cancer of the uterus; advised removal and operated but left the ovaries. These afterward showed signs of cancer and in five years were removed. Six months ago a sore developed near the umbilicus. There was quite a mass which seemed detached, and with a pair of forceps he pulled it away. Afterward the opening communicated with the bowel and fecal matter was discharged through it.

Dr. A. E. Derwent reported a case of infection of the conjunctiva of one eye, the result, he thought, of infection with cowpox from milking.

Dr. C. T. Howard was elected a member.—F. M. Douglass, M. D., Reporter.

JOHNSON COUNTY MEDICAL SOCIETY.

The Johnson County Medical Society met at Warrensburg in regular session March 10th.

New members reported as follows: Dr. L. H. Robinson, Warrensburg; Dr. D. E. Shy, Knobnoster; Dr. Harry F. Parker, Warrensburg.

A motion carried that our annual banquet be held on or near the date of our next quarterly meeting, June 9th.

AFTERNOON SESSION.

The committee on contract practice reported and recommended the passage of the following resolutions:

Resolved: That it is inimical to the best interests of this society and the profession in general for its members to engage in contract work, whether it be individual, family, society, county, state or national.

Resolved: That we as individual members of the Johnson County Medical Society will in the future not do any of this class of work.

Resolved: That we agree not to make life insurance examinations for lodges and societies for less than three dollars per examination.

Resolved: That discounts on the regular fees for practice be not permitted by members of this society.

Resolved: That the secretary of this society be hereby instructed to notify every member of this society individually of the action taken, and that these resolutions be made a part of the by-laws of this society and that fifty copies of these resolutions be printed for distribution to the members.

After thoroughly discussing the matter, the motion to adopt was unanimously carried, all feeling that a good work had been done.

Dr. John T. Anderson, Cornelia, Mo., was elected to represent this society as a member of the Auxiliary Committee on Medical Legislation of the American Medical Association.

The scientific program consisted of two practical, well-written papers. The first was by Dr. John T. Anderson, entitled "Adenoids in the Vault of the Pharynx." The second was by Dr. T. L. Bradley, entitled "Let us Get Close to the People." Both papers were discussed at length, all members participating.

That this was one of the best meetings of our society, was the unanimous comment of all present.—E. H. Gilbert, M. D., Reporter.

LAWRENCE-STONE COUNTY MEDICAL SOCIETY.

The Lawrence-Stone County Medical Society met in regular session at Mt. Vernon on March 3d. Dr. Madry, who had represented the society at the secretaries' meeting in Kansas City, reported what he had found to be the purpose of that meeting, and some of the topics that had been under discussion. Dr. Coffelt of Springfield, councilor for this district, being in attendance, made a report supplementing Dr. Madry's. The election of officers having been continued from the Crane meeting was taken up and completed as follows: Dr. W. W. Rodman of Pierce City, censor; A. H. Madry of Aurora, delegate to the State Association at Springfield, with Dr. J. B. Fleming alternate. President Huffman appointed the committee on sanitation and medical legislation as follows: W. W. Rodman, F. S. Stevenson and L. Henson, these to act with A. H. Madry of the Auxiliary committee of the A. M. A.

Dr. Coffelt of Springfield opened the scientific program, reading a paper entitled "Otitis Media." The paper was one of those kinds that deal in a practical way with a troublesome subject. Dr. Coffelt confined himself principally to acute otitis media. It is to be regretted that so few general practitioners give this subject the thorough consideration its frequency and extreme importance demand. It developed on opening of discussion, that three members of the society present had been sufferers from otitis media, and these personal experiences stimulated an interest the merits of the paper had aroused.

Dr. Loveland spoke of the necessity of caring for earaches and the difficulty of impressing this upon patients, or if in children, their parents. He recommended the use of borated warm water applied with fountain syringe; drainage should be favored and protargol or argyrol applied in most cases. Dry boric acid was a favorite powder and constitutional treatment was not to be neglected. Dr. Fleming favored cocaine for relief of pain, and placed a high value on moist heat.

Dr. Madry attributed an attack to a nasopharyngeal inflammation from la grippe the eustachian tube conducting the inflammation to the middle ear. Paracentesis had been performed early, but a three weeks' attack was not averted during which time the mastoid cells continually threatened mischief. He advocated hot water applications.

Dr. Stevenson had had a personal experience, but it was of shorter duration, his drum having perforated within thirty-six hours from the beginning of the attack.

Dr. Terry said it was difficult to have treatment carried out properly, that otitis media should be treated by a specialist, but that all things were not as they should be. He had insisted on irrigations and antiseptics. The irrigations should be from a fountain syringe at a low altitude, the current running slowly. He thought the specialist should give the general practitioner a plan of treatment.

Dr. Rodman used boroglyceride and ichthyol with glycerine.

Dr. Huffman desired to know, in using eustachian catheter, how young a patient could be successfully catheterized. He thought a thorough knowledge of the anatomy was necessary in order to the successful operation for mastoid abscess. Early incisions of the drum relieved pain due to the pressure. He was in favor of normal salt solution applied warm, or a warm solution of boric acid.

Dr. Holmes found many cases recurrent in children. He used boric acid in diluted alcohol as an application to the ear.

Dr. Coffelt, in closing, said we ought to impress the importance of these cases on patients; that the disease was not contagious, except when caused by contagious diseases such as diphtheria, scarlet fever, etc. He thought that in many cases where a child had died of a meningeal trouble, we could truthfully say that it was really due to a neglected otitis media, and this truth ought to be impressed on people.

It was difficult to lay down a plan of treatment for general practitioners that could or would be followed. Dr. Terry's plan was good in skilled hands, but dangerous in unskilled. He recommended antiseptics and not too much washings. Had never been able to use catheter on very young patients, and thought Dr. Holmes' cases new infections rather than recurrent attacks.

As an anodyne, he recommended a sol. of cocaine, or a 10 per cent sol. of carbolic acid in glycerine, applied warm to the drum and cotton placed on top.

Dr. C. W. Shelton informed the society that there would be carriages in waiting to convey the members to the State Tuberculosis Sanatorium for dinner, and adjournment to meet again at 2 p. m. was announced.

Arriving at the sanatorium, the board was found to be in session. Adjourning, they resolved into a reception committee, and the society was escorted to the commodious dining hall where a splendid dinner was in waiting. The cleanliness of cooks and waiters, the selection of foods and the preparation and the general cheerfulness in evidence already foreshadow success in this most essential part of the treatment of tuberculosis. The rooms are neat and well constructed for light and ventilation, and the entire force from superintendent to the lowest employe, seem actuated by an earnest desire to achieve success for the

institution, and to spread its beneficence both to the plague-threatened and plague-stricken throughout the state and nation. The administration building is now in process of construction.

AFTERNOON SESSION.

Immediately after call to order, Dr. Madry asked for an expression of the society in regard to the prosecution of abortionists and other illegal practitioners.

After a short informal discussion the committee on sanitation and medical legislation was ordered to retire and prepare resolutions expressing the will of the society. The committee returned and reported the following which was unanimously adopted: "Resolved that we, the Lawrence-Stone Medical Society, do hereby endorse the action of our prosecuting attorney in his efforts directed toward the prosecution of abortionists and other illegal practitioners of medicine, and we promise him our moral support in his further efforts to rid our profession, the state and humanity of these undesirable characters."

Dr. Terry re-opened the scientific program with a paper on the present status of serum therapy. This was a most excellent paper and dealt with the latest facts in serum therapy, taking up and treating of the opsonins and the part they play in serum therapy. This paper brought forth some discussion, but for its advanced stand and for the convenience of the sanatorium management, who were in attendance at the afternoon session, the time was divided that we might hear Dr. Eaton's paper on "Open Air."

Dr. Eaton's paper was a forceful presentation of the necessity of open air, both in the prevention and treatment of disease. The laity as well as the profession throughout the state should read this paper. The state could not more wisely economize than make provision to publish and distribute such literature.

Drs. Brown and Porter discussed the paper, the one, briefly, yielding to Dr. Porter who dealt more extensively with the subject, particularly that phase relating to the prevention and treatment of tuberculosis. Dr. Porter insisted on the importance of forming anti-tuberculosis societies throughout the country.

Society adjourned to meet next at Aurora.—A. H. Madry, M. D., Reporter.

MARION COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Marion County Medical Society was held on March 6th, 1908. Members present: Drs. Bush, Glahn, Bonds, U. S. Smith, Chilton, Chowning, Roselle, Waldo, Schmidt, Hill, Hornback, Detweiler, Bourn, Paxon and Banks.

Dr. Chowning mentioned two cases of old men who had attacks of la grippe, resulting in extreme exhaustion.

Dr. Bush read a very interesting paper on "Vertigo." Dr. Schmidt

also gave an equally good paper on "Fractures." Both papers were discussed.

The Committee on Program reported as follows for the balance of the year:

April—"Anesthesia." By Dr. Farrell.

May—"Ectopic Pregnancy." By Dr. Hays.

June—"Epigastric Pain as a Symptom." By Dr. Hill.

July—"Criminal Abortion." By Dr. Goodier.

August—"Some Diseases of Childhood." By Dr. Chilton. "Epilepsy in Children." By Dr. Vandiver.

September—"Iritis." By Dr. Hornback.

October—Subject not announced. Dr. Glahn.

November—Subject not announced. Dr. Roselle.

December—"Nasal Catarrh." By Dr. U. S. Smith.

The next regular meeting will be held on April 3d, 1908.—H. L. Banks, M. D., Secretary.

MONITEAU COUNTY MEDICAL SOCIETY.

The Moniteau County Medical Society held its regular meeting at California. The meeting was held in two sessions, the regular session at 1:30 p. m., and the open session at 8 p. m. The following were in attendance: Drs. J. H. Lang, L. L. Latham, J. B. Norman, H. Freudenberg, J. M. Robertson, W. R. Patterson, J. W. Marsh, A. V. Thorpe, H. C. Kleuber, J. J. Russell, W. H. Elliot, Solon Cameron of St. Louis, and J. L. Thorpe of Jefferson City.

The subject of tuberculosis occupied the whole time of both sessions. At the afternoon meeting, Dr. J. M. Robertson talked on "Change of Climate for Tuberculous Patients." Dr. J. H. Lang read a paper entitled "The Source of Contagion in Tuberculosis." Dr. L. L. Latham read a paper on "Tuberculosis of the Skin." Each member and visitor took part in the discussion that followed the reading of the papers. This was an unusually good program and aroused considerable enthusiasm.

The evening meeting was held in the circuit court room and was attended by a large audience, many persons standing in the aisles. Dr. Solon Cameron of St. Louis delivered a lecture on tuberculosis, illustrated by stereopticon views. Dr. F. W. Patterson of Tipton operated the stereopticon.

The next meeting of the society will be held in Tipton on the second Thursday in June.—W. R. Patterson, M. D., Secretary.

RAY COUNTY MEDICAL SOCIETY.

The Ray County Medical Society met in regular session at Richmond, Wednesday, March 18th, with the following members present: Drs. L. D. Greene, H. S. Major, C. B. Shotwell, R. L. Hamilton, J. E. Ball, T. B. Cook, E. T. McGaugh, Geo. W. Smith and E. F. Higdon.

Dr. Robert L. Hamilton was elected president to fill out the unexpired term of Dr. E. H. Musson, who has moved out of the county. Dr.

H. S. Major was elected delegate to the State Association, with Dr. J. W. Smith as alternate.

It was decided to hold the next meeting on the fourth Wednesday in May at 4 p. m., to be followed by a banquet at the Richmond Hotel at 8 p. m. The president appointed Drs. Shotwell, McGaugh and Higdon to serve as a committee on arrangements for the banquet. An assessment of one dollar per member was voted to pay the expense of the banquet. Motion was made and carried that an invitation be extended to Drs. W. W. Mosby, Wm. Yates, W. A. Jones and A. D. Clark, retired physicians of the county, to attend the banquet as guests of honor of the society.

The society then proceeded to the program, which consisted of an excellent paper on "Hysteria," by Dr. C. B. Shotwell. This was ably discussed by Drs. Hamilton and Cook, the discussion being closed by Dr. Shotwell.

The members seem very much encouraged over the outlook of the society for the coming year. We have more members now than ever before and a greater interest is being manifested.

The following program was arranged for the next meeting, Wednesday, May 27th, at 4 p. m.:

Paper—"Small Pox." By Dr. E. W. Rentfro.

Discussion—Dr. J. E. Ball.

Paper—"Management of Summer Diarrhea." By Dr. L. D. Greene.

Discussion—Dr. T. B. Cook.—Herman S. Major, M. D.,

Secretary.

STE. GENEVIEVE COUNTY MEDICAL SOCIETY.

The Ste. Genevieve County Medical Society held its annual meeting on December 11th, 1907, President Moore in the chair. The minutes of the last meeting were read and approved.

The officers for the coming year, 1908, were elected as follows: Dr. F. E. Hinch, president; Dr. J. A. Wilkins, vice-president; Dr. R. W. Lanning, secretary and treasurer.

Dr. G. M. Rutledge was elected one of the board of censors.

MEETING OF MARCH 11TH.

The president appointed on the Committee of Public Policy and Legislation, Drs. Moore, Rutledge and Hinch. The treasurer's report for the year 1907 was read and approved.

The following resolution was offered by Dr. Rutledge: "That the Committee on Public Policy and Legislation be empowered to use not to exceed twenty dollars (\$20.00) of the society's funds in prosecuting persons illegally engaged in the practice of medicine in this county." On motion the resolution was adopted.

All business being transacted, the society adjourned until the second Wednesday in April, to meet in St. Marys, Mo.—R. W. Lanning, M. D., Secretary.

BOOK REVIEWS

HUMAN ANATOMY INCLUDING STRUCTURE AND DEVELOPMENT AND PRACTICAL CONSIDERATIONS. By various authors. Edited by George A. Piersol. Illustrated. Pp. 2088. Philadelphia and London: J. B. Lippincott Co. 1907.

This new textbook on anatomy was undertaken, the author tells us in the preface, with three general considerations in view, namely: 1. The presentation of the essential facts of human anatomy, regarded in its broadest sense, by a descriptive text which, while concise, should be sufficiently comprehensive to include all that is necessary for a thorough understanding not only of the gross appearances and relations of the various parts of the human body, but also of their structure and development. 2. Adequate emphasis and explanation of the many varied relations of anatomical details to the conditions claiming the attention of the physician and surgeon. 3. The elucidation of such text by illustrations that should portray actual dissections and preparations with fidelity and realism.

Examination of the work leaves no doubt in the mind of the critical student that these broad lines have been followed with faithfulness and precision.

The publishers have succeeded in binding the 2088 pages in one volume in such a manner that the open book lies flat at any page, a desideratum of special importance in a work of this character. It is also bound in two volumes.

A TEXTBOOK OF THE PRACTICE OF MEDICINE. By James M. Anders, M. D., Ph.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Eighth revised edition. Octavo of 1317 pages, fully illustrated. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$5.50 net; half morocco, \$7.00 net.

A textbook which, within a few years, reaches its eighth edition certainly must be not only popular but also good. Anders' Practice of Medicine presents with unequalled preciseness and clearness the subject of clinical medicine in a most practical form. In its eighth edition the author again has brought his book abreast with recent medical advancements.

PROGRESSIVE MEDICINE, Vol. 1, March, 1908. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 284 pages, with 11 engravings. Per annum in four cloth-bound volumes, \$9.00; in paper binding, \$6.00, carriage paid to any address. Lea & Febiger, publishers, Philadelphia and New York.

The March issue of *Progressive Medicine* deals with five important practical branches of medicine and surgery.—Surgery of the Head, Neck and Thorax, by Prof. Charles H. Frazier, of the University of Pennsylvania; Infectious Diseases, Acute Rheumatism and Croupous Pneu-

monia, by Dr. R. B. Preble, of Chicago; Rhinology and Laryngology is thoroughly covered in its latest progress by Prof. D. Braden Kyle, of Philadelphia, and Otology is similarly handled by Dr. Arthur B. Duel, of New York.

The particular value of *Progressive Medicine* to every medical man, lies in the fact that the whole practical side of medicine is covered, so far as all advances are concerned, by writers of recognized authority, who present the subject in the form of an original and connected narrative, ready for application.

CLINICAL TREATISES ON THE SYMPTOMATOLOGY AND DIAGNOSIS OF DISORDERS OF RESPIRATION AND CIRCULATION. By Professor Edmund von Neusser. Authorized English Translation by Andrew MacFarlane. Part I. DYSPNOEA AND CYANOSIS. New York, E. B. Treat & Co. 1907. Octavo, 204 pp., \$1.50.

In this series the famous clinician of the University of Vienna studies disease from the point of view of symptomatology. After a discussion of the nature of dyspnoea and cyanosis, he takes up, one after the other, the various diseases and conditions which may exhibit these symptoms. There will be two more volumes in this series, one dealing with tachycardia and bradycardia, the other with angina pectoris.

TEXTBOOK OF PHYSIOLOGY: FOR MEDICAL STUDENTS AND PHYSICIANS. By William H. Howell, Ph.D., M. D., LL.D., Professor of Physiology, Johns Hopkins University, Baltimore. Second edition, thoroughly revised. Octavo volume of 939 pages, fully illustrated. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$4.00 net; half morocco, \$5.50 net.

In this work main emphasis is laid upon those facts and views which will be directly helpful in the practical branches of medicine. Repeatedly it has been pronounced the best written and most stimulating textbook on physiology in the English language. This second edition brings the work up to the present time and describes the principles and methods now taught in this branch of medical learning.

SURGICAL DIAGNOSIS. By Daniel N. Eisendrath, A. B., M. D., Adjunct Professor of Surgery in the Medical Department of the University of Illinois. With 482 original illustrations, 15 of them in color. Philadelphia and London. W. B. Saunders Co. 1907. Cloth, \$6.50 net.

Without an exact diagnosis it is impossible to undertake proper surgical measures for the relief of disease. With this aim in view Dr. Eisendrath seems to have planned the work before us. The systematic examination of each surgical disease or injury is accurately described, and in many instances the description of the typical findings pictured in well executed and instructive illustrations. It would seem that everything in this volume is presented with the one intent to be of practical value, and the author, with his extraordinary clinical experience, is specially fitted to write just such a volume on the diagnosis of surgical diseases and injuries.

AMERICAN MEDICAL ASSOCIATION.

Next Annual Meeting at Chicago, June 2-5, 1908.

President: JOSEPH D. BRYANT, New York City.

President Elect: HERBERT L. BURRELL, Boston.

Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Springfield, May 19, 20, 21, 1908.

President: W. S. ALLEE, Olean.

Vice Presidents:

THOS. B. COOKE, Rayville; A. H. VANDIVERT, Bethany; CHAS. HOUGH, Jefferson City; J. P. DUNIGAN, Holliday; O. F. PILE, Memphis.

Secretary: A. W. McALESTER, Jr., Kansas City.

Assistant Secretaries: PAUL Y. TUPPER, St. Louis; GAIL ALLEE, Lamar.

Treasurer: J. FRANKLIN WELCH, Salisbury.

Medical Section.

Chairman: T. F. LOCKWOOD, Butler. Secretary: GAIL ALLEE, Lamar.

Surgical Section.

Chairman: H. E. PEARSE, Kansas City. Secretary: P. Y. TUPPER, St. Louis.

ORATORS.

Oration on Medicine:

JOHN H. DUNCAN, St. Louis.

Oration on Surgery:

HERMAN E. PEARSE, Kansas City.

COMMITTEES.

Committee on Scientific Work.

H. E. Pearse, T. F. Lockwood, P. Y. Tupper, Gail Allee.

Publication Committee.

W. B. Dorsett, Chairman; M. B. Clopton, M. C. Shelton.

Committee on Public Policy and Legislation.

C. E. Fulton, Chairman; H. E. Pearse, Geo. W. Wilson.

Committee on Medical Education.

N. B. Carson, Chairman; C. M. Jackson, E. W. Schauffler.

Committee on Tuberculosis.

Wm. Porter, Chairman; W. M. Bayliss, J. B. Norman, M. P. Overholser, Tinsley Brown.

COUNCILLOR DISTRICTS AND COUNTIES IN EACH DISTRICT.*

F. J. LUTZ, St. Louis, Chairman. E. J. GOODWIN, St. Louis, Secretary.

First District.—Councillor, C. L. Evans, Oregon. Counties: Holt, Atchison, Nodaway.

Second District.—Councillor, W. T. Elam, St. Joseph. Counties: Buchanan, Andrew.

Third District.—Councillor, G. W. Whitely, Albany. Counties: Harrison, Worth, Gentry, DeKalb.

Fourth District.—Councillor, C. R. Buren, Princeton. Counties: Grundy, Sullivan, Mercer, Putnam.

Fifth District.—Councillor, E. E. Parrish, Memphis. Counties: Clark, Scotland, Schuyler.

Sixth District.—Councillor, H. Jurgens, Edina. Counties: Adair, Knox, Lewis.

Seventh District.—Councillor, L. W. Dallas, Hunnewell. Counties: Shelby, Marion, Ralls.

Eighth District.—Councillor, W. B. Dorsett, St. Louis. Counties: Lincoln, St. Charles, St. Louis, Pike.

Ninth District.—Councillor, Woodson Moss, Columbia. Counties: Audrain, Boone, Howard, Callaway, Warren, **Montgomery.**

Tenth District.—Councillor C. W. Reagan Macon. Counties: Macon, Randolph, Monroe.

Eleventh District.—Councillor, J. D. Brummall, Salisbury. Counties: Chariton, Carroll, Livingston, Linn.

Twelfth District.—Councillor, E. H. Miller, Liberty. Counties: Platte, Clay, Ray, Clinton, Caldwell, Daviess.

Thirteenth District.—Councillor N. P. Wood, Independence. County: Jackson.

Fourteenth District.—Councillor, C. T. Ryland, Lexington. Counties: Lafayette, Saline, Cooper.

Fifteenth District.—Councillor, M. P. Overholser, Harrisonville. Counties: Cass, Johnson.

Sixteenth District.—Councillor, J. R. Buchanan, Nevada. Counties: Bates, Vernon, Barton.

Seventeenth District.—Councillor, R. D. Haire, Clinton. Counties: Pettis, Henry, Benton, St. Clair, **Hickory.**

Eighteenth District.—Councillor, Frank DeVilbiss, Eugene. Counties: Miller, Moniteau, Morgan, Camden.

Nineteenth District.—Councillor, G. Ettmueller, Jefferson City. Counties: Cole, Osage, Maries, Gasconade.

Twentieth District.—Councillor, F. J. Lutz, St. Louis. Counties: Franklin, St. Louis City.

Twenty-first District.—Councillor, B. M. Hypes, St. Louis. Counties: Jefferson, Ste. Genevieve, Perry.

Twenty-second District.—Councillor, J. D. Porterfield, Jr., Cape Girardeau. Counties: Scott, Madison, Cape Girardeau, Mississippi, **Bollinger.**

Twenty-third District.—Councillor, T. C. Allen, Bernie. Counties: Stoddard, Dunklin, Pemiscot, New Madrid.

Twenty-fourth District.—Councillor, J. J. Norwine, Poplar Bluff. Counties: Wayne, Butler, Ripley, Carter.

Twenty-fifth District.—Councillor Frank Harrison, Farmington. Counties: Washington, Reynolds, Iron, St. Francois.

Twenty-sixth District.—Councillor, R. L. Johnson, Rolla. Counties: Crawford, Phelps, Pulaski, Laclede, Dent, **Dallas.**

Twenty-seventh District.—Councillor, H. C. Shuttee, West Plains. Counties: Howell, Shannon, **Ozark, Oregon, Texas, Wright, Douglas.**

Twenty-eighth District.—Councillor, T. A. Coffelt, Springfield. Counties: Greene, Lawrence, Barry, Stone, Christian, Webster, Polk, **Taney.**

Twenty-ninth District.—Councillor, A. R. Snyder, Joplin. Counties: McDonald, Newton, Jasper, Cedar, **Dade.**

*Counties in black are not organized.

County Societies in Affiliation with the State Medical Association.

County.	President.	Address of President.	Secretary.	Address of Sec'y.
Adair.....	J. S. Gashwiler.....	Novinger.....	E. C. Grim.....	Kirksville.
Andrew.....	John Husher.....	Rosendale.....	R. E. Mills.....	Gillmore.
Atchison.....	E. A. Lewis.....	Rockport.....	A. McMichael.....	Rockport.
Audrain.....	W. W. McFarlane.....	Mexico.....	C. A. Rothwell.....	Mexico.
Barry.....	Wm. M. West.....	Monett.....	D. L. Mitchell.....	Cassville.
Barton.....	A. B. Stone.....	Lamar.....	C. F. Brown.....	Lamar.
Bates.....	H. A. Rhodes.....	Foster.....	E. N. Chastain.....	Rich Hill.
Benton.....	E. L. Rhodes.....	Lincoln.....	W. S. Jones.....	Lincoln.
Boone.....	W. A. Norris.....	Columbia.....	A. W. Kampschmidt.....	Columbia.
Buchanan.....	H. S. Forgrave.....	St. Joseph.....	Chas. W. Fassett.....	St. Joseph.
Butler.....	Victor Cadwell.....	Poplar Bluff.....	A. R. Rowe.....	Poplar Bluff.
Caldwell.....	C. O. Dewey.....	Breckenridge.....	Tinsley Brown.....	Hamilton.
Callaway.....	H. I. Owen.....	Fulton.....	Martin Yates.....	Fulton.
Caniden.....	G. M. Moore.....	Linn Creek.....	G. T. Myers.....	Macks Creek.
Cape Girardeau.....	R. F. Wichterich.....	Cape Girardeau.....	E. H. G. Wilson.....	Cape Girardeau.
Carroll.....	W. C. Baird.....	Bogard.....	R. F. Cook.....	Carrollton.
Carter-Shannon.....	Wm. Fulton.....	Winona.....	J. A. Chilton.....	Van Buren.
Cass.....	G. M. Anderson.....	Pleasant Hill.....	R. P. Yeagle.....	Pleasant Hill.
Cedar.....	Kimball Hill.....	El Dorado Springs.....	J. W. Dawson.....	El Dorado Springs.
Chariton.....	C. H. Temple.....	Rockford.....	C. A. Jennings.....	Salisbury.
Christian.....	J. C. Young.....	Ozark.....	J. A. Robertson.....	Ozark.
Clark.....	N. W. Harris.....	Winchester.....	A. H. Teel.....	Kahoka.
Clay.....	J. J. Rice.....	Kearney.....	F. H. Matthews.....	Liberty.
Clinton.....	John Sturgis.....	Perrin.....	E. A. Colley.....	Plattsburg.
Cole.....	W. A. Cole.....	Jefferson City.....	S. V. Bedford.....	Jefferson City.
Cooper.....	R. L. Evans.....	Boonville.....	J. R. Lionberger.....	Boonville.
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Daviess.....	W. L. Brosius.....	Gallatin.....	M. A. Smith.....	Gallatin.
DeKalb.....	E. T. Stroup.....	Weatherby.....	R. A. Evans.....	Amity.
Dent.....	A. F. McMurtrey.....	Salem.....	J. C. Welch.....	Salem.
Dunklin.....	N. F. Kelley.....	Kennett.....	Paul Baldwin.....	Kennett.
Franklin.....	J. P. Dunigan.....	Sullivan.....	A. C. Brown.....	Moselle.
Gasconade-Marie Osage.....	J. J. Radamacher.....	Meta.....	J. D. Seba.....	Bland.
Gentry.....	J. U. Barger.....	Darlington.....	Benj. Davis, Jr.....	Albany.
Greene.....	T. A. Coffelt.....	Springfield.....	J. L. Ormsbee.....	Springfield.
Grundy.....	Samuel Sheldon.....	Trenton.....	H. A. Duffy.....	Trenton.
Harrison.....	W. H. Wiley.....	Ridgeway.....	J. H. Morrow.....	Ridgeway.
Henry.....	J. R. Hampton.....	Clinton.....	F. M. Douglass.....	Clinton.
Holt.....	F. E. Bullock.....	Forest City.....	J. F. Chandler.....	Forest City.
Howard.....	J. Y. Hume.....	Armstrong.....	C. W. Watts.....	Fayette.
Howell.....	J. C. B. Davis.....	Willow Springs.....	A. H. Thornburgh.....	West Plains.
Iron.....	Ira A. Marshall.....	Ironton.....	G. W. Farrar.....	Ironton.
Jackson.....	C. B. Hardin.....	Kansas City.....	E. L. Stewart.....	Kansas City.
Jasper.....	J. W. Clark.....	Cartersville.....	R. M. James.....	Joplin.
Jefferson.....	G. W. Tidwell.....	DeSoto.....	R. E. Donnell.....	DeSoto.
Johnson.....	W. G. Thompson.....	Holden.....	E. H. Gilbert.....	Warrensburg.
Knox.....	J. R. Northcutt.....	Knox City.....	A. R. Wiley.....	Hurdland.
Laclede.....	W. C. Lockwood.....	Conway.....	J. A. Pinckard.....	Lebanon.
Lafayette.....	Lewis Carthae.....	Corder.....	C. T. Ryland.....	Lexington.
Lawrence-Stone.....	D. M. Huffman.....	Crane.....	C. W. Shelton.....	Mt. Vernon.
Lewis.....	J. C. Brown.....	Lewistown.....	Paul F. Cole.....	Steffenville.
Lincoln.....	S. R. McKay.....	Troy.....	Wm. P. Smith.....	Troy.
Linn.....	J. T. Polson.....	Laclede.....	Foster W. Burke.....	Laclede.
Livingston.....	H. M. Grace.....	Chillicothe.....	J. C. Shelton.....	Chillicothe.
McDonald.....	E. F. Doty.....	Anderson.....	M. L. Sellers.....	Anderson.
Macon.....	W. H. Miller.....	Macon.....	C. W. Reagan.....	Macon.
Madison.....	S. C. Slaughter.....	Fredericktown.....	J. K. Smith.....	Fredericktown.
Marion.....	F. W. Bush.....	Hannibal.....	H. L. Banks.....	Hannibal.
Mercer.....	H. P. Chesmore.....	Princeton.....	C. R. Buren.....	Princeton.
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Moniteau.....	H. V. Thorpe.....	Jamestown.....	W. R. Patterson.....	Tipton.
Monroe.....	S. M. Brown.....	Monroe City.....	M. C. McMurry.....	Paris.
Morgan.....	P. G. Woods.....	Versailles.....	H. N. Lutman.....	Versailles.
New Madrid.....	Welton O'Bannon.....	New Madrid.....	C. W. Watson.....	New Madrid.
Newton.....	R. L. Willis.....	Neosho.....	Horace Bowers.....	Neosho.
Nodaway.....	F. R. Anthony.....	Maryville.....	H. L. Saylor.....	Elmo.
Penicoot.....	J. G. Luten.....	Caruthersville.....	John Johnson.....	Hayti.
Perry.....	T. M. Hudson.....	Perryville.....	F. M. Vessells.....	Perryville.
Pettis.....	C. Bohling.....	Sedalia.....	Frank R. Morley.....	Sedalia.
Phelps.....	W. S. Smith.....	Rolla.....	S. L. Baysinger.....	Rolla.
Pike.....	R. L. Pollard.....	Eolia.....	R. G. Hereford.....	Louisiana.
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Polk.....	J. E. Loafman.....	Bolivar.....	A. P. Mitchell.....	Bolivar.
Pulaski.....	W. L. Ragan.....	Richland.....	E. A. Oliver.....	Richland.
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Randolph.....	G. O. Cuppidge.....	Moberly.....	T. D. Mangas.....	Moberly.
Ray.....	R. L. Hamilton.....	Richmond.....	H. S. Major.....	Hardin.
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St. Louis Co.....	C. A. Dunnivant.....	Kirkwood.....	W. H. Townsend.....	Maplewood.
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Sullivan.....	J. C. Kessinger.....	Milan.....	J. S. Montgomery.....	Milan.
Vernon.....	J. F. Robinson.....	Nevada.....	T. McLemore.....	Nevada.
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Webster.....	H. Highfill.....	Marshfield.....	Wm. R. Beatie.....	Marshfield.
Worth.....	W. A. Robertson.....	Denver.....	J. K. Phipps.....	Grant City.

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ORIGINAL ARTICLES

SOME REFLECTIONS CONCERNING THE STATUS OF THE MEDICAL PROFESSION.*

BY ROBT. H. GOODIER, M. D., HANNIBAL, MO.

Good judgment rationally and naturally rests its appraisalment of merit in any ethical system of professional organization, upon the character and attainments of its duly accredited representatives, and the measure of good it accomplishes. The truth of this premise is nowhere more substantially correct or apparent than in the intelligent, public estimate of the profession of medicine. For this reason the physician should be a man of liberal education and strict moral integrity. As the apostle of good health and the high priest unto nature, he must have such knowledge of hygiene as will enable him to formulate sanitary rules and regulations that best conserve and protect normal vitalism in its physiological expressions. Moreover, as the exemplar and teacher of higher knowledge relating to the circumstance and mode of life, the physician must be faithful and loyal to the principles of a profession that has such vital interests in the individual units of society as well as the larger public welfare.

It is no less his duty to prevent disease than to contribute to its cure, when once expressed. Like the watchful sentinel, guarding the army's encampment from sudden surprise and assault of the enemy, the true physician stands over against the caravan march of life, with all its flushing hopes and ambitions, to discover the lurking ambushes of deadly infection, whose outbreak causes such desolation to the human family. He must necessarily be a student,—satisfied with nothing short of the fullest attainment of which he is capable. Where he cannot lead he must be able to follow by keeping in touch with the work of stronger and better endowed members of his profession. Standard medical works in his library, leading periodicals and journals which must be read and digested; together with local and state medical society affiliation, are auxiliaries of great strength and helpfulness to all who are willing to be

*Read by title at the Fiftieth Annual Meeting, Jefferson City, May, 1907.

informed, and no physician who hopes to succeed can afford to neglect these means of growth.

As well might the farmer expect last season's rains and sunshine to fructify the seed of harvest to-day as for a physician to practice his profession on a knowledge of medicine learned at college ten or twenty years ago. I would not decry this knowledge, for it is essential, but it must be worked over and added to all the while; like oil in the lamp, it must be replenished; or, as the manna of old, good for present use but must not be depended upon for future need. Besides, we owe it to society and especially to our own clientele, whose faith in us is sometimes so beautifully expressed, to keep pace with the advance of medical progress and bring to their aid all that it offers. Our ministry is to the sick and suffering of our race, in whatever circumstances or conditions we may be called to attend them, and no profession imposes more serious and sacred obligations upon its representatives than the profession of medicine. Our function is as broad as the ills of human life, and deep as the reach of our power to help.

On the whole, the mercenary spirit or hope of reward is less a motive with the true physician in the discharge of duty than with representative members in other professions. Aside from the church militant, the state has no higher interest than that represented in a scientific, moral, medical profession, and the intelligent, reputable physician is the state's best asset. More closely and vitally related to its supreme interest than any other human agency; more than the lawyer, who makes and interprets laws under which metes and bounds of social order are defined; more than the banker, who is the fiscal agent and commercial index of the state's prosperity; even more than the teacher, who educates and qualifies the embryo citizen in the duties of civic and moral responsibility. For what would all these interests be worth unless conserved and protected by the physician's knowledge and wisdom. A study of our profession shows its ministry faithful and in perfect accord with the best interests of the citizen and state. In this connection I might emphasize this truth, namely: That all rational, scientific medicine has its best expression and highest culmination in the old and original system of medicine as represented by the regular, or "Old School" as it is sometimes denominated. It is always the pioneer, blazing paths of noble conquest for the advance of human progress, and guardian of human destiny. Civilization measures its leaps and bounds under the guiding spirit of its best interpreters.

This pride and boast of our profession is on substantial grounds of evidence, and we are able to furnish proof that will not only refute but embarrass any counter challenge. All the scientific standards of medical progress have been raised by exponents of our profession; all the important discoveries that mark epochs in medical advance are the result of their study and research. We boast a long line of immortals,—heroes in strife and struggle for the good of others, who did their work well and left the world a legacy of good immeasurable, next only to that

vouchsafed by the Divine intercession in the plan of human redemption; and some stand close in faith and works to the great purposes of this oblation.

The Hall of Fame would not contain their names, and yet none have record there. But it is well. We would not entrust their names to such a perishable monument; for, like the Coliseum and Parthenon, it shall crumble into dust and be the habitation of owls and bats, but our great men shall live on while human hearts have affection and life has woes. It is well. Only another instance of the world's ingratitude to its chief benefactors. In eternity they shall have their reward; for like Abou-Ben Adhem they wrote their names within the Book as those who loved their fellow-man, and when the seal of the Book shall be opened, Lo! their names, like his, shall lead all the rest. Galen, Harvey, Jenner, Benjamin Rush, Beaumont, Simpson, Ephraim McDowell, Virchow, Marion Sims, Koch and Pasteur! What names are more illustrious, and who have done more for human need? All life to-day is debtor to the grace and love of their unselfish labors. Hosts of others might be named, who shine resplendent in the same noble galaxy, and whose influence is a sweet benediction to-day in the hearts and lives of millions who knew them not, and will be in the lives of millions yet unborn.

Among some of the many beacon lights of our professional ministry that have given the deepest benefactions of joy and peace to the human family, we may briefly mention the complete systemization of all anatomical organization and relation, as well as of physiological function. Upon the basis of these fundamental branches of our science rests all the success of medical progress, and they are distinctly the glory of the "Old School" exponents. Vaccination, anesthesia, the circulation of the blood, the process of gastric digestion, the cell genesis of life, the germ etiology of disease, anastomosis of arteries, antisepsis and asepsis, the isolation of the cholera, tubercular and plague germs. The stegomyia calopus has been disarmed of her deadly infection and yellow fever is no longer the dread and scourge of our southern neighbors. Antitoxin, the specific antidote to the deadly ravages of the Klebs-Loeffler bacillus, has set a new star of promise over the nursery pledges of love. These and many other brilliant discoveries are the priceless heritages bequeathed to the human family by representatives of our profession. Again, to-day, one of the most notable and splendid achievements of modern engineering art is made possible only by the doctor's intervention. His contribution in measures of sanitary science is more essential to the successful completion of the great Panama Canal than government authority, and the millions of dollars appropriated for its execution. But here, however, as in many other instances, while the doctor is chief factor he is not the central figure. His unobtrusive presence is not in the lime light of this great exploitation, and history is not likely to give him the credit that is due him, albeit the government has given his services splendid recognition. Let a plague, or blighting pestilence, sweep over our country to-day, and representatives of our profession be inactive, or, if such an attitude on

their part could be conceived, refuse to meet the exigencies of the situation, what would be the result? It would be too sad to contemplate, and I will not raise the curtain upon what would be life's deepest, darkest tragedy. But how urgent would be the clamorous public outcry for the old "Regulars" to throw the protective aegis of their influence over against the deadly infection. In times of deepest human need, the public safety knows the bulwark of its best protection; society feels a security and confidence that lulls the panic fear in the presence of a plague-stricken danger when it knows the "Old Guard" is on duty.

But, gentlemen, what is the status of a profession so proud in achievement, one that has ever done its duty to society and the state in such beautiful benefactions of good? It is good you say. Yes, better than it has ever been in many respects. We have greater and better endowed men to-day than in any former period of our history, who are reflecting the zenith of its glory in brilliant discoveries and resolving mystery into knowledge. The rank and file of its ministry, also, have caught the spirit of inspiration and truth and are pressing on in paths of high and noble endeavor with the shibboleth of victory. But while this is true, its best exponents know and feel that there are conditions involving some serious handicaps that must be overcome before it can attain its fuller measure of promise. Down among the foot hills, or in the background, rises the smoke of unholy sacrifice from violated altars of our faith and ministry. Unprotected in our rightful sovereignty, we are made the scapegoat of all forms of semi-professionalism and apostasy. Gross ignorance and charlatanry in fake enterprises, and criminal alignment, are to-day the shame and menace of the noblest profession under heaven. I do not mean to imply that an ignorant member of our profession cannot be ethical and honest, but I do insist that anything less than a fair average preliminary qualification is not the proper foundation for the study and practice of medicine. Licentiates with such a positive handicap are precluded from legitimate competition with more capable members of the profession, and have the strongest incentives to fall into the lowest stratum of unprofessionalism. All frauds and charlatans, however, are not ignorant. Now and then, but infrequently, we find a representative with whom the passion of gain is stronger than the sense of moral rectitude, prostituting reputable attainments.

But from whatever class, the too often disreputable leech-craft of this cult does more to prejudice public favor against our ministry, and create an excuse for the fads and fallacies of occult empiricism, than all other agencies. Public caprice and credulity are too easily influenced by this class, and in the multiplicity of human ailments the brazen affrontery of graft challenges and confuses the afflicted at every turn, vaunting the most extraordinary methods of cure. People, not instructed in the ethics of our profession, readily give ear to the voice of the seducer and too often find they have committed themselves to the care of evil and designing mountebanks. Yet experience teaches them nothing, for they are hardly out of the toils of one deceit before they are ensnared by

another. Poor unfortunate victims, will follow up the rankest imposters and become their oracles until money and health are gone. Then the wasted, wrecked remains of such misguided lives become a care and burden on the charity of some honest, reputable physician who smooths out the penitent's path to the grave as best he can. Surely the sufferings and afflictions of our fellow-man are too sacred responsibilities for fraud and graft to capitalize upon, without our strongest protest. Petit larceny is punished by law and should be; but petit larceny, that steals its shift here and there, is a virtue compared with the dark graft that consorts with human confidence to rob its victims of both money and health. It ought, however, to be an object lesson of sufficient import to the citizen and state, to see that men of this class are not men who take rank in the profession. They are never prominent, except in public print, or in some piracy of human confidence. Such ilk are not even recognized by the better class of physicians, who give honor and dignity to the profession, and men upon whom society and the state depend when outbreaks or epidemics of disease, menace the public welfare. The reputable profession smarts and burns under this shameful abuse and prostitution of professional honor, but seems powerless to redress the grievous wrong. It cries out warning against the abominable treachery, but seems only to attract more favorable attention to the evil it would protest.

Quacks and charlatans are baneful anomalies, evolutions of violated faith on the part of a semi-professional class for sordid, mercenary interests. With a suave, bland, mannerism and too often a voluble ignorance, they beguile public confidence, and a noble profession must bear the sin and reproach of their machinations until it can purge itself of this shameful prostitution.

Gentlemen, in conclusion, let me say that the profession must take the initiative if it would rid its ministry of this baneful progeny. And it can be done by a determined, united action and the help of the state. The state does not, however, yet seem properly to appreciate its full measure of responsibility to a profession from which it expects and demands so much, and from which it has received such great benefactions. It is true the state has authorized and chartered colleges for the purpose of training and qualifying licentiates of medicine, and makes fairly liberal appropriations for the maintenance of state medical departments and boards of health. But the state must go further, and give legislative enactments that will enable the profession to safe-guard and protect its own interest as well as the public welfare, in the character and type of its representatives, and prevent the fake enterprise and graft of a large and increasing class of professional apostates. The state would readily give its aid to this end if legislators could understand the real merits of the situation. Let it be our duty to press this issue with the state until we obtain legislative redress for this baneful reproach.

Another means to this end is in reputable medical schools of uniform and accredited entrance requirements. The profession should insist that there shall be no evasion or compromise on the part of any school in the

enforcement of these requirements, for the sake of patronage or otherwise. This is not only due the profession and society at large, but simple justice to such colleges as zealously guard the portals of our profession, and whose primary interest is to qualify and develop the true physician and make him a credit to his Alma Mater. Standard, high grade schools are our pride and strength, and the profession should foster and encourage them by vigorously protesting against the existence of all low-grade or open-door institutions. Graduates from the former are, generally, an honor to our profession, and enter upon its ministry with the favor and grace of embodied opportunities and high, noble incentives. But unfortunately we seem to have another type of school, and might suppose, from certain extant evidence, that they exist for the purpose, mainly, of furnishing an incidental livelihood to the incorporators. Their diplomas, in too many instances, mean nothing more than matriculation certificates, or in other words, are better receipts for the discharge of pecuniary benefits to the school than as tokens of any merit or qualification in the student. Now and then a few students of reputable attainments come out of these schools, but if they had the proper appreciation for their interest they would not want to make such schools an Alma Mater. Thanks to our late legislature we now have specific legislation affecting the preliminary qualification of future matriculates in medicine, and no wiser legislation was enacted by the Forty-fourth General Assembly.

THE ROENTGEN RAY IN THE DIAGNOSIS OF RENAL AND URETERAL CALCULI.*

BY R. D. CARMAN, M. D., OF ST. LOUIS, MO.

Year by year, the inadequacy of diagnosis based upon clinical symptoms alone, that is to say, the subjective symptoms of the patient and the signs elicited by ordinary means, becomes more and more apparent. Too much praise cannot be accorded those clinicians who, by combining careful observation, judicial ability, common sense and occasionally rare intuition, have made diagnostics a real science. The things which they have learned and taught will never become entirely obsolete; they will be modified, developed, elaborated and improved, but, constantly the demand both of faculty and laity, grows more insistent for increasing exactness. Probabilities become less tolerable, errors less excusable. The facts must be had, even though obtainable only by the most extraordinary methods, and every possible accessory is expected to be used. These remarks are especially pertinent to kidney stone, the diagnosis of which, in the past, has rested chiefly upon the following clinical symptomatology: 1. Attacks of renal colic characterized by intense pain, either in the back, or, more typically, in the flank of the affected side, radiating into the testicle and inner thigh. 2. Hematuria and other alteration in the urine, such as the presence of sediment and stones. 3. The signs and symptoms of complications, such as pyelitis; that is to say, chill, fever and pyuria.

Now, while these symptoms are present in many cases of kidney stone, it is inexact to speak of them, as does one textbook, as being "definite and characteristic," for it is also true of many cases that stone may be present without these symptoms; that these symptoms may be present without stone, and that the symptoms may be referred to the opposite side. Some of these facts have been admirably set forth by Charles Lester Leonard and others. In further corroboration I wish to call your attention to some of my cases hereinafter reported.

Boggs and many others, hold that the radiographer should also be a clinical diagnostician, and the writer cheerfully endorses this view. With his uncommon opportunities, the radiographer cannot fail to be interested in the symptomatology of these cases, and in everything of every sort that will aid in their diagnosis. The clinical examination of each patient should be comprehensive and thorough. But—and here I wish to speak with emphasis—the radiographer should not be unduly prejudiced by the information thus gained. The radiograph should stand upon its own bottom. It should be distinctly positive, or distinctly negative. A careful clinical examination plus a careless x ray examination

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

becomes a doubtful quantity, and no amount of the former will make up for the latter.

Value of the Method. The value of the Roentgen rays in the diagnosis of renal calculi has been so clearly demonstrated that little is left to be said in this regard. Joseph F. Smith quotes Henry Morris as reporting 44 nephrectomies for stone, diagnosed by clinical methods alone, where no stone was found. On the other hand, Kümmel and Rumpel report a series of 18 cases diagnosed by the x ray, in all of which the stones were found and removed. A host of similar comparisons can be gleaned from the literature. Indeed, hostile criticism of late rather takes the form that a positive finding is valuable as confirmation, but that a negative finding is of doubtful significance. With a varying, and, as yet, incompletely developed technique, this view may have some justification, but with a further elaboration of methods it will undoubtedly be true, as Cole, Kümmel, Rumpel, and many others, already assert, that with a negative x ray finding, there is no stone present.

W. W. Keen remarks that it replaces an uncertain guess by a positive diagnosis, and its negative value is quite as great as its positive.

J. B. Herrick, editor of "Nothnagel's Practice" (diseases of the kidney), commenting upon Senator's rather mild advocacy of the x ray method says: "The value of the x ray in locating stones has passed beyond the experimental stage. The Roentgen rays will nearly always show a shadow when stone is present, and a failure with a stone present is likely to be due to an error in technique."

Bevan¹ holds that "a perfect skiagraph, with the proper amount of detail and differentiation is of greater value as a means of diagnosis than an exploratory operation. I am done with incomplete operations and operations done in the dark for kidney stones. A good skiagraph will show whether there is one or more stones. It will show which side the stone is on and exploration of the ureter can be omitted in an aseptic case when, from a clear x ray picture, we feel confident all stones have been removed."

Carl Beck² says that, contrary to the abundant proof of reliability of renal skiagraphy, text books hesitate to recommend, and even warn the practitioner against this method, because others have observed grave errors committed in its employment.

Whenever error has been committed, it was due to the individual and not to the method, and the latter should not be held responsible.

A definite diagnosis in suspected lithiasis can be made, *i. e.*, a renal calculus must invariably show, provided the calculus is there.

Fenwick³ states that one of the most distressing of failures in urinary surgery is to cut into a kidney and mutilate it, perhaps irreparably, in order to find a stone which has long ago left that organ and traveled down the ureter; and yet this must happen at least in 22 per cent of all cases of renal stones if the x ray expert is not called upon to help in the diagnosis. "That the expert radiographer can guide the

urinary surgeon with a precision unattainable by any other means is without cavil, and I assert this on an experience of 500 operations upon the kidneys. In fact, I know of no obligation so great as that which the expert radiographer places the surgeon and patient under when he accurately defines a stone in the lower ureter."

Crawford⁴ thinks that we are not justified in proceeding blindly in search of a stone, the location of which may be positively demonstrated by the use of this agency.

Holland⁵ declares that with a competent x ray examination the operation becomes no longer, so as to speak, an exploratory one. The sufferer is encouraged to submit to operation much sooner, dangerous delay is thus avoided and the surgeon knows exactly what he is going to search for, the exact spot to incise, and, in many cases, exactly how many stones there are. He further remarks that if the x ray shows a small stone engaged in the ureter, with no symptoms of obstruction present, this knowledge would be of great value to the physician as evidence of the possibility of the passage of the stone, and repeated examinations might show the stone gradually passing from the ureter, or its presence in the bladder.

Leonard⁶ remarks that the Roentgen method determines with absolute accuracy the presence or absence of all calculi in every case in which a satisfactory negative can be secured, if the negative is correctly read. "The Roentgen method of detecting or excluding calculi from the kidneys and ureters has proved itself to be absolutely accurate, when applied with the requisite technique. The errors which have been noted were all due to defective technique, or inexperience, in reading the negatives. The absolute negative, as well as the positive diagnosis of calculous disease is feasible. It depends solely upon the production of negatives having detailed shadows of tissues less opaque than the least opaque calculus; when such a negative is obtained and correctly read, no error can be made."

Kümmel⁷ says: "Our experience has proved that every stone in the kidney becomes visible on a good x ray plate, if the proper technical precautions are observed, and that, on the other hand, if the plate fails to show a shadow, a stone is not present." And he speaks from an experience of 328 cases!

Some Statistics. Owing to the varying manner in which the case figures are furnished, I have found it impossible to tabulate them. However, the following are the more important statistical statements.

C. T. Holland⁸ has examined 79 cases and in 22 stone or stones have been found. In 10 cases other shadows occurred, some easily differentiated from stone, others not.

A. B. Johnson⁹ has examined 125 cases. In one of his earlier cases, a shadow upon the plate, due to a defect in the gelatin, was diagnosed as a stone. The patient was operated on and no calculus was

found. In 30 cases the positive diagnosis of stone was confirmed by operation. One negative error was due to the use of too short a plate.

F. H. Jacob¹⁰ reports 9 cases. In 6 cases the stones were located and removed by operation. One negative case was lost sight of. In one case in which he failed to demonstrate a stone, but in which the severity of symptoms warranted an operation, a villous tumor of the pelvis of the kidney was found. In the other case, examination showed three small shadows in the left loin. Patient was operated on and three small calcareous glands were found in the mesentery. There was no kidney on the left side.

Max Reichmann¹¹ reports 64 cases; 23 gave positive results, confirmed by operation. In one case a diagnosis of pyonephritis in one kidney and nephrolithiasis in the other, was made. Operation confirmed the pyonephritis on the one side, but on the other only infected foci were discovered, without the presence of any concretion. Thirty-three cases were absolutely negative, so far as the Roentgen plates were concerned.

L. G. Cole¹² states that in 179 cases he has failed once to show a renal calculus when it was present. The failure was due to the plate not extending high enough to cover the kidney region. In two cases he made a diagnosis of stone when none was present.

Kümmel and Rumpel¹³ report 18 cases diagnosed by the x ray, all of which were subsequently removed by operation.

Reid¹⁴ examined 150 cases. Of these 63 were subsequently operated upon. A positive skiagraphic result was given in 36 cases, 25 in the kidney, 3 in the ureter and 8 in the bladder. Of the 25 renal cases, the stone was found by the surgeon in 23 cases and in one it was found post mortem. In one case it was missed, being merely a small collection of sandy material. Of the 3 ureteral cases, 2 were removed and the third passed subsequently. In the 8 vesical cases the stone was found and removed in 7 instances. A negative skiagraphic result was followed by operation in 12 renal cases and 15 vesical, and of these, a stone was found once in the kidney and once in the bladder.

Joseph F. Smith¹⁵ states that in 27 cases of suspected kidney stone operated upon by Bevan, it was possible to make a positive diagnosis of calculus in 13 cases, a doubtful diagnosis in one case and a negative diagnosis in thirteen cases. In the doubtful case, operation revealed a single stone the size and shape of a pumpkin seed, lying well up under the last rib. More careful examination of the skiagraph in this case showed a rather vague shadow directly over the last rib. Dr. Smith states that the failure here was due more to an error of interpretation of the skiagraph than to the skiagraph itself. In the thirteen cases in which a negative diagnosis was made, the following conditions were found at operation: Tuberculosis, 5 cases; pyonephrosis, 2 cases; essential renal hemorrhage, 2 cases; cysto nephrosis, 1 case; hydronephrosis, 1 case; polycystic kidney, 1 case; hypernephroma, 1 case.

Leonard¹⁶ reports 59 cases of suspected renal calculus examined with

the x ray. Of these 59 cases 12 had stones, either in the kidney or ureter; 8 of the cases were confirmed by the operation. One case later passed a ureteral calculus, two others had ureteral stone, but the age of the patient did not warrant operation, and one case of positive diagnosis refused operation.

Of the negative cases, seven were operated upon and the negative diagnosis confirmed in all except one, where faulty technique was responsible for not finding the stone, as the portion of the kidney containing the stone was not in the plate.

Kümmel⁷ reports 328 cases, with 65 positive cases confirmed by operation, and makes no mention of any errors.

To the foregoing may be added the writer's 55 cases, reported herewith. In these there was technically one positive error, the stone being in the appendix and not in the ureter. No negative errors have thus far been demonstrated.

The above figures represent a total of 1093 cases with only 12 errors, an error percentage of about 1 per cent. This percentage is quite small, and covers a period of imperfect technique and inexperience. It can be justly claimed that the x ray diagnosis of renal stone is quite as reliable as the Widal reaction in typhoid, or the bacteriologic findings in diphtheria.

Advantages of the Method. 1. The examination is painless. No general or local anesthetic is required, with the resultant depression and subsequent treatment.

2. It requires very little time, and the dangers of burn are practically nil.

3. It gives the exact location of the stone or stones, whether in the kidney or ureter, and, most important of all, gives the number of stones present.

4. There is no exploratory operation necessary, as far as the detection of calculi are concerned.

5. Calculi bilaterally situated are recognized, and the danger of operating upon the wrong kidney or ureter thus obviated.

6. The negative diagnosis is as accurate as the positive, when proper care is taken.

Technique. The patient for x ray examination of the urinary tract, should be given a cathartic several hours before the examination. This is done to eliminate fecal concretions and to minimize the number of exposures.

At the time of exposure, all clothing is removed from the part to be examined and the patient may then be covered with a thin sheet if necessary.

The patient lies upon his back, with the shoulders elevated and the knees flexed, thus to bring the kidneys as close to the plate as possible. This is most conveniently done by the aid of pillows and sandbags.

Some form of compression is always used to limit the motion of the

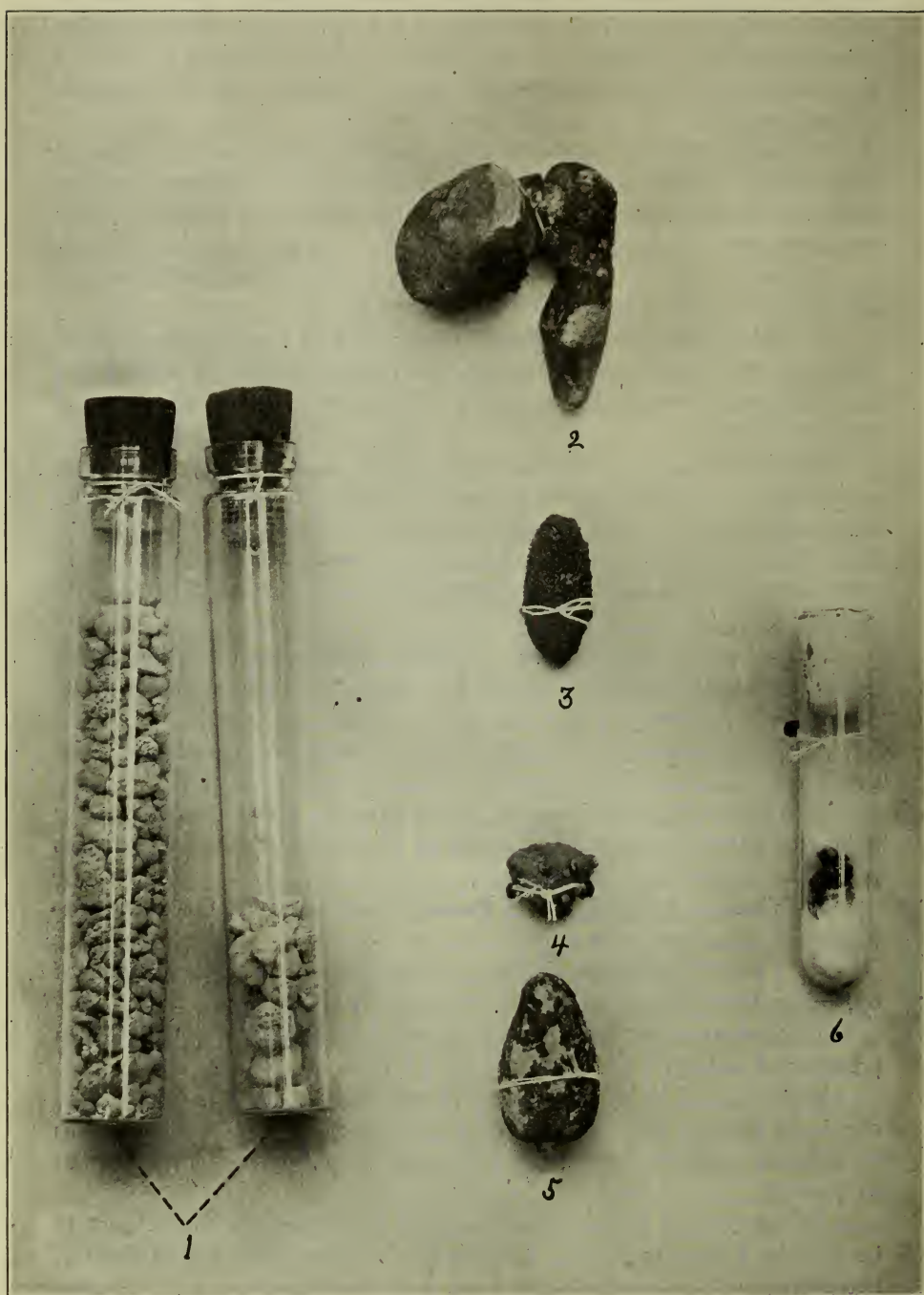


Fig. I. No. 1. Calculi passed by Dr. G. No. 2. Calculus removed from kidney. No. 3. Calculus removed from left ureter. No. 4. Calculus removed from kidney. No. 5. Calculus removed from bladder. No. 6. Small uric acid calculi removed from ureter by the aid of the cystoscope. All these calculi were shown in skiagrams, except No. 6.

kidney, due to respiration. This is accomplished either by the abdominal binder, the compression diaphragm, or by instructing the patient to hold the breath. In the first examination two 11x14 plates are used. These plates carefully placed will give us pictures of the whole urinary tract. Following this examination, smaller plates are used with the compression diaphragm to more carefully examine smaller areas successively.

In this connection, I should like to say that the most valuable kidney plates are not usually beautiful as works of art, nor easily read by the inexperienced. They are not "photographs" of the kidney at all. They are records of relative density.

As more than half of the Roentgen technique depends upon the Crookes tube, it might be well to mention that the writer prefers a heavy self-regulating tube, neither too low nor too high in vacuum. The one I like best might be called by some a "seasoned tube." With such a tube, a good coil and a mercury turbine interrupter, we are able to get good tissue differentiation; and the exposure may vary from one to five minutes without change of vacuum, or danger to the patient.

The development is best done by the operator. Plates in which calculi are suspected should be developed with a rather dilute developer in order to increase the contrast between soft structures. This will necessarily prolong the time of development, but the results obtained are so satisfactory that the time is well spent.

The interpretation of the negative requires careful study and experience. I prefer to study the negatives in an illuminated box, looking at them from a distance with opera glasses, as suggested by Kümmel. Robert Abbe¹⁷ remarks that to appreciate the meaning of skiagraphs requires as much experience as the technique of taking them. The most useful plates are often those which at first sight seem failures. A wet plate may show nothing, but when dry and held in proper light, may give good results.

In radiographic examination for stone errors are of two kinds:

POSITIVE ERRORS. By a positive error we mean radiographic diagnosis of the stone when none is present. They are as follows:

1. *Phleboliths.* These are usually bilaterally situated; the shadows cast are usually more definite, sharply defined and are smaller than ureteral calculi. In a measure they can be excluded by a picture taken with the aid of the ureteral bougie, as suggested by Fenwick, of London.

2. *Foreign Bodies in the Appendix.* Dodd and Osgood¹⁸ mention this possibility; and case 8, hereinafter reported, is an example. This error, however, can be eliminated by skiagraphing with the ureteral bougie *in situ*.

3. *Cheesy Deposits in the Calyces of the Kidney.* Also mentioned by Dodd and Osgood.¹⁸ Presumably these would only be caused by tuberculosis, and a bacteriologic examination of the urine might be of service.

4. *Scybalae or Fecal Concretions.* These can usually be eliminated

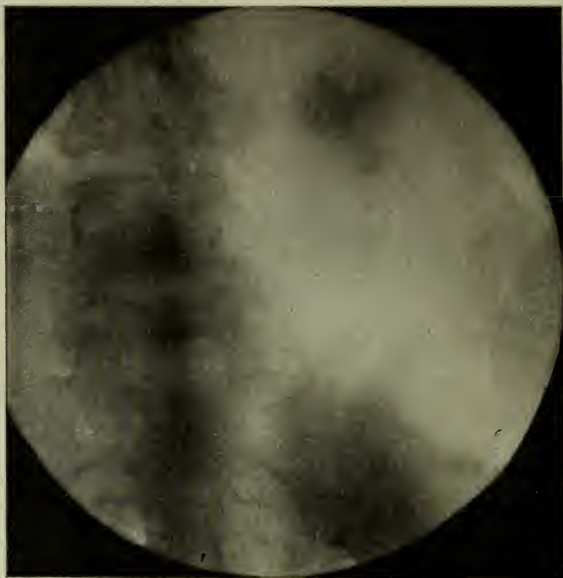


Fig. 2. Calculus in right kidney.

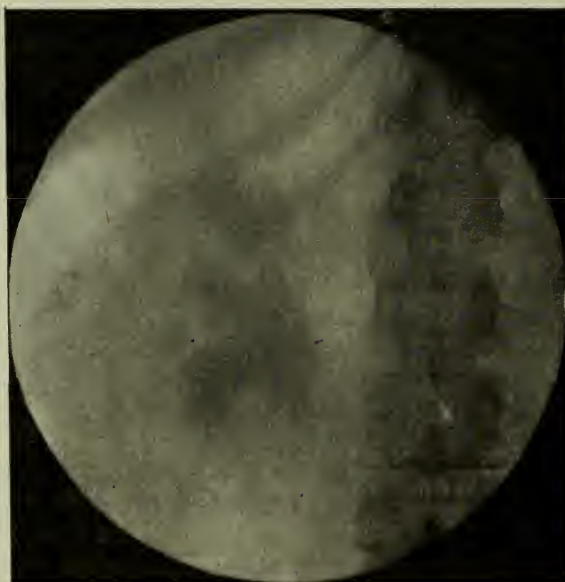


Fig. 3. Calculus in left kidney. Both Fig. 2 and Fig. 3 from the same patient.

by screen examination when they are displaced laterally by the peristaltic movements of the bowel, and by catharsis and a second examination.

5. *Small Bony Deposits in the Pelvic Ligaments.* Here again the bougie is of value.

6. *Calcified Lymph Glands Around the Lower Portion of the Ureter.* These also can be excluded by the ureteral bougie.

7. *Transverse Processes of the Vertebrae (Especially When the Outer End is Chalky) and Ossification in the Rib Cartilages as Mentioned by Albers-Schoenberg.* These can usually be eliminated by close inspection of the plate.

8. *Dense Masses of Fibrous Tissue as Mentioned by Riddle¹⁹ Who Cites a Case in Which an Operation had been Done Leaving a Thick Scar, Which Cast a Shadow Similar to Stone.* The history of any previous operation along the area to be examined should be taken into account. Practically this source of error is unimportant.

9. *Defects in Plates.*

10. *Atheromatous Conditions.*

11. *Drugs in the Intestine—Bismuth—(Baetjer).*

NEGATIVE ERRORS. By a negative error we mean a failure to make a radiographic diagnosis when stone is present. Among the causes are:

1. *Obesity.* Obesity increases the difficulty of getting shadows, but, unless extreme, it is not insuperable. The compression diaphragm is of great value in these cases. Case No. 9 of this series weighed 200 pounds.

2. *Uric Acid Stones.* This is practically nil as pure uric acid stones are rare. Urinary calculi usually contain enough of the opaque salts to cast shadows.

3. *Defects in Plates.* Excluded by close examination of the plate and a second examination.

4. *Imperfect Technique.*

To sum up the sources of error, one can readily see that they are mainly in the individual and not in the method.

To date I have examined by the Roentgen method fifty-five cases of suspected renal stone. Shadows indicative of stone were found in twenty-five. Of these, ten have been operated upon and the stones removed. An eleventh case was also operated upon and the concretion discovered to be in the appendix.

Of the twenty-five cases in which the Roentgenograms showed stones, the shadows were in the kidney alone in seven; the shadows were in the ureter alone in fifteen, and in the kidney and ureter in two.

In none of the cases were both kidneys involved. Shadows were found in both ureters in four cases. In one case there was a stone in the right kidney and one in the right ureter. In another case there was a stone in the left kidney and one in the right ureter.

In ten cases the stone shadows were multiple.

In one case, confirmed by operation, the symptoms were referred

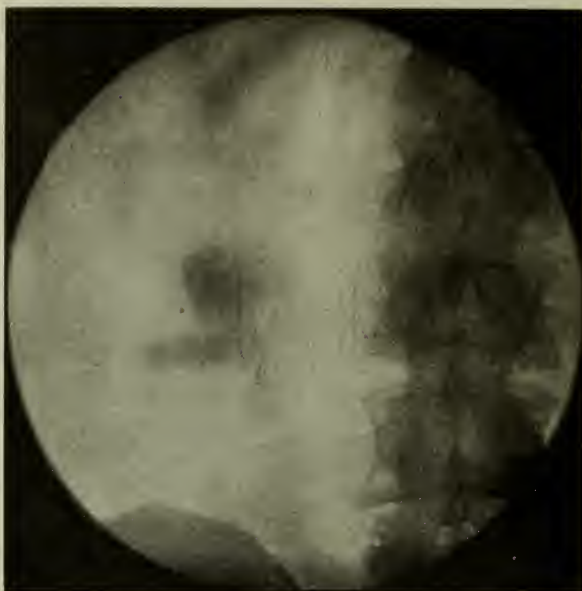


Fig. 4. Large calculus in left kidney.



Fig. 5. Large calculus in bladder.

to the side opposite to the one affected. Another similar case has not yet been operated upon.

Of the fifty-five cases examined no stones were found in thirty. Four of these were operated upon and other conditions than stone discovered, so that in the thirty negative cases no error has yet been demonstrated. Some of the interesting ones are as follows:

Case 1. Mr. H., age 43, attorney. Referred by Dr. Bransford Lewis. Complained of pain in left lumbar region. Six years ago there was a passage of sandy particles in urine. January, 1905, first of a series of similar attacks, which usually began as a dull aching in left abdominal region. After an hour of such aching the pain became sharp, extending down the left side into the bladder and left testis. Patient has had four such attacks. Urine showed some red blood cells. In October, 1905, under chloroform anesthesia, ureteral catheterization was attempted. Obstruction was met on both sides about one inch up the ureter.

Skiagrams showed two shadows in left ureter region and one in the right. The shadow on the right side was not in the ureter, as shown by ureteral catheterization, while on the left side the catheter coiled up in the bladder after meeting obstruction with the stones.

Case 2. Mr. B., age 25, salesman. Referred by Dr. Hugo Summa. Patient has been operated upon for appendicitis; post-operative hernia following. Present illness began last March, with pain in left lumbar region, extending into the groin and accompanied with chills, fever and vomiting. Duration nearly three weeks. Second attack in November with pain in left side radiating into glans penis. No chills or fever with this attack. Vomited once. Urine negative.

Skiagrams: Shadow in left uterer region, intrapelvic. Fourteen days after skiagraphy, and five days after medical treatment by Dr. Summa, patient passed a stone.

Case 3. Mrs. X., referred by Dr. Jesse S. Myer. First seen three years ago when patient complained of a dull, aching pain in the left side. The patient later consulted a Chicago physician who catheterized the ureters and said the kidneys were normal. Recently patient had an acute attack of la grippe. During this time patient complained of acute pain in left side. Urine: Red blood cells and a few leucocytes.

Skiagrams showed three shadows in left kidney region.

Operation, March 28, 1907. Three stones were removed from the left kidney pelvis, one fully as large as a pigeon's egg, very irregular in outline, showing here and there the mulberry type. Two smaller stones, about the size of peas, more regular in shape and of the mulberry type. Patient convalescent.

Case 4. Mr. F., age 54, merchant. Referred by Dr. G. M. Phillips. This patient had had four attacks of abdominal colic in the last three years. The pain was quite severe, extending into the left groin. Pa-

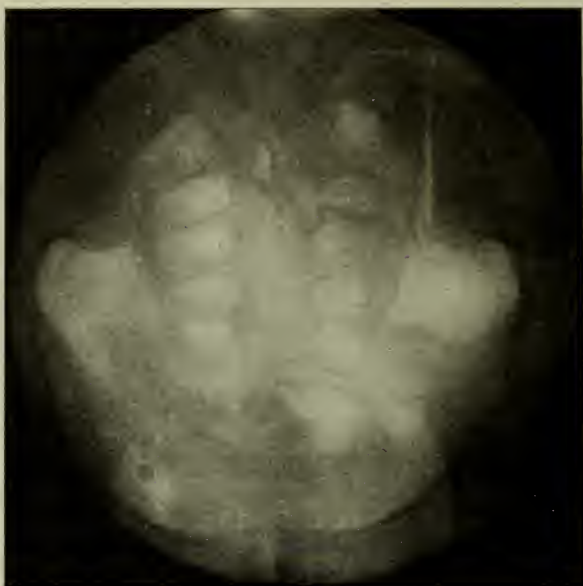


Fig. 6. Calculus in left ureter, about one inch from bladder.

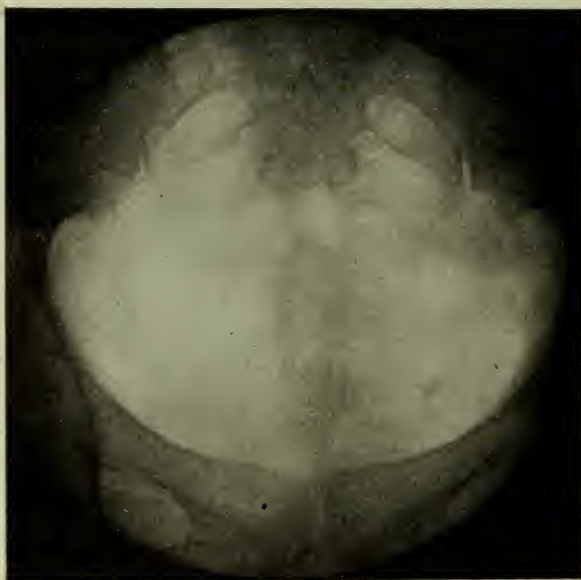


Fig. 7. Calculus in right ureter.

tient had chilly sensations, fever and some nausea, with each attack. Urine: acid, some red blood cells. No pus or albumin.

Skiagrams showed a shadow in left ureter region, intrapelvic.

Operation: Ureter was exposed retroperitoneally and on palpation a small mass was felt in the ureter within the pelvic cavity. The ureter was then followed as high as possible and nothing felt. Returning to where mass was found, nothing could be felt as before and ureter seemed clear. Dr. Phillips then washed the crumbled up stone from the bladder. This patient made a good recovery and has had no symptoms since.

Case 5. Mr. M., age 67, merchant. Referred by Dr. Jesse S. Myer, November 1, 1906. For about a year had had stomach trouble. In July began to notice pain which he located in the right lumbar and iliac region. The pain was deep, dull, aching in character and usually disappeared when the patient assumed a reclining posture. Urine: Acid, slight amount of albumin, very few red blood cells, numerous leucocytes, few casts.

Skiagrams showed a shadow in right kidney region and one in right ureter region, intrapelvic.

Operation February 15th, 1907. Kidney delivered, palpation of pelvis showed no stone. Incision through cortex revealed a mulberry stone, larger than a pea, which was removed. The ureter was then exposed retroperitoneally and a smooth stone about one half the size of a pea removed.

Case 6. Mr. F., age 45. Referred by Dr. Willard Bartlett. Abdominal trouble for five years. In June, 1902, appendix was removed with no relief of trouble. Patient still continued to have a dull, aching pain in the right abdomen, which was constant unless the patient was perfectly quiet. Some digestive trouble with occasional vomiting. Months of strict diet had not helped him, nor had rest and change of climate.

In April, 1906, skiagrams of the urinary tract gave a shadow in left ureter region, intrapelvic.

Operation April 25, 1906. A smooth round stone, about the size of a buckshot removed from the left ureter. May 8th, patient went home perfectly well and has had no symptoms since.

Case 7. Mr. H., aged 44, druggist. Referred by Dr. Willard Bartlett. Patient has had indefinite pain in abdomen for about three years. Fourteen months ago commenced to have attacks of abdominal colic in left side. These were exceedingly severe and were usually followed by blood in the urine.

Skiagrams showed a shadow in the left kidney and one in right ureter intrapelvic. Urine: Red blood cells and pus.

Operation October 27. Confirmed all shadows. November 10th, patient sitting up and ready to leave the hospital.

Case 8. Miss I., age 31, referred by Dr. M. G. Seelig, February 28, 1907. Present trouble began four months ago with pain in back and

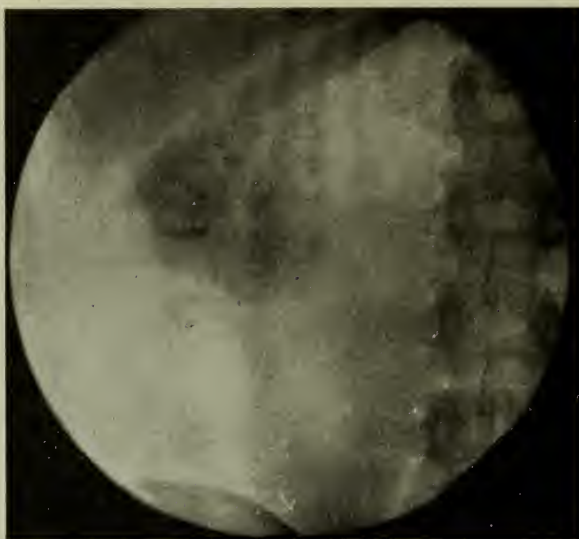


Fig. 8. Tuberculosis of left kidney, showing multiple phosphatic stones.

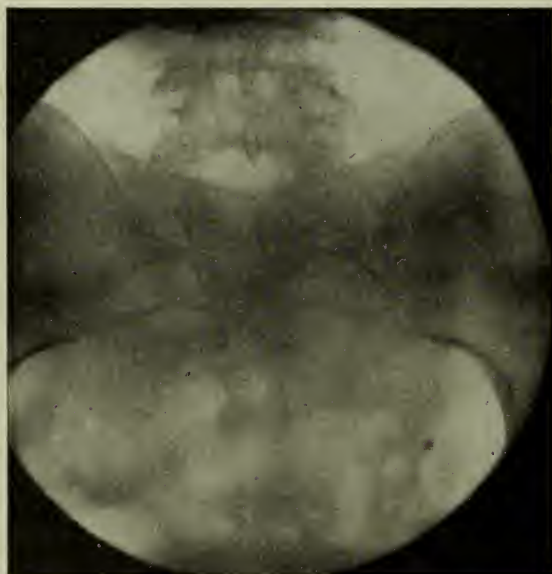


Fig. 9. Coprolith in the appendix simulating calculus in the ureter.

right lower abdominal quadrant. Patient noticed blood in the urine twice. A week ago had an acute attack resembling stone colic, patient fainting from pain. Cystoscopy showed normal ureteral orifices. Ureteral catheter entered left ureter and easily passed to kidney. In the right ureter progress of catheter was blocked about three inches from ureteral orifice. Urine: Negative.

Skiagrams showed a shadow in right ureter region intrapelvic. This observation was confirmed three times, the shadow, however, being two inches lower in the first plate than in all the others.

Operation: Extraperitoneal exposure of the ureter failed to locate ureteral stone. Small stone felt intraperitoneally which proved to be a coprolith in the appendix. The base of the appendix was adherent to the ureter. The coprolith consisted of a small organic seed as a nucleus with a mass of feces around it.

Skiagrams of this coprolith after removal gave a distinct shadow. Examination of patient after recovery showed an absence of the shadow.

Case 9. Mrs. B., age 41. Referred by Hugo Summa. Patient stout, weighing over 200. Abdomen thick and pendulous. For six months had had frequent attacks of pain in left side high up, radiating into gastric region, which led to a diagnosis of and treatment for stomach trouble by one of her physicians. Urine contained uric acid crystals; traces of albumin, discoverable only by Spiegler's test.

Skiagrams: After eight examinations a shadow was found in left ureter region, intrapelvic.

November 17, 1906, operation. Ureter was exposed retroperitoneally and a stone the size of a small bird-shot removed. December 5th patient went home to California and has had no symptoms since.

Case 10. Mr. R. Referred by Dr. Bransford Lewis. Trouble began five years ago with pain in left lumbar region, which was less severe in cold weather. This patient consulted six physicians and two osteopaths with no diagnosis or relief. Urine: Blood cells, calcium oxalate crystals. Cystoscopy and ureteral catheterization negative.

Skiagrams showed shadow in left kidney region.

Operation September 21, 1905. The stone was in renal pelvis, was about the size of a large pea, and had the color and appearance of a mulberry. Recovery uneventful and complete.

Case 11. Mr. H. P., age 43, salesman. January 20, 1907. Patient has complained of back for years. Two years ago had abdominal colic which lasted for about eighteen hours. Pain severe, requiring morphine. Chilly sensations and fever. No vomiting. In October, 1906, a second attack of abdominal colic, vomiting, no chills or fever; recovery in two weeks. Since this attack patient has been comparatively free from pain. Urine: Blood and calcium oxalate crystals.

Skiagrams of urinary tract show a shadow in left ureter region intrapelvic.

Dr. Lewis, with cystoscope in bladder, tried to pass a metal probe

up ureter to stone. The probe encountered a stricture at the ureteral opening so that efforts to pass it carried a loop of ureter up and to the inner side of stone.

Case 12. Mr. L. Referred by Dr. A. N. Curtis. Present trouble commenced eighteen months ago with sudden and severe pain in right lumbar region, extending into the groin and testicle. No chills, fever or vomiting. Six months later a second attack, less severe, lasting only a few hours. A month later was refused life insurance because of albumin in the urine. One month ago a third attack similar to the first. Urine: Albumin, red blood cells, pus and casts.

Skiagrams show a shadow in right kidney about the size of a hazel nut.

Operation: A single stone of the size indicated, rather rough, of the mulberry type, was removed from the kidney pelvis.

Conclusions. 1. The accurate diagnosis of kidney or ureteral stone is possible by the Roentgen ray only.

2. Clinical symptoms alone are insufficient to determine the presence or absence of kidney stone, their number, size or location.

3. Every suspected case of stone should be radiographed.

4. The radiographic examination should yield a definite result.

5. The interpretation of the plate is as important as the making of it.

6. The causes assigned for radiographic errors are, for the most part, not insuperable. There are few that cannot be overcome by improvement in technique, by perseverance and by experience.

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DISCUSSION.

Dr. Roberts, of Kansas City: I know nothing about the working of the electrical appliances, etc., but I was very much interested in the paper, owing to the fact that we have to call upon these men frequently

to help us make our diagnoses, yet I have met with quite a number of disappointments; but I am glad the doctor read his paper, and I wish that other men who are working along this line could have been present to hear it. It is merely another lesson in teaching us to be more careful in trying to make our diagnoses. I can see where some of the men who did this work for me have made mistakes and neglected some points the essayist brought out. I recall one case where I had a skiagraph taken. The history was that of stone. I cut down and found the ureter in good condition, except for some cicatricial tissue binding it down, and slightly dilated above obstruction. That was the reason I couldn't pass the ureteral catheter. I had made my diagnosis of stone after trying to pass the ureteral catheter, and finding a foreign body there. When we cut down to remove it, we found that it was a ball out of a 32 cartridge. It had been there for about four years. We did not get any history of this previous to the operation. The man received the wound and had never had the abdomen opened. He made a good recovery four years before that, and the ball was so close that the ureter had become involved by the cicatricial tissue that had tied it down. Although we were fooled as to the kind of stone it was, by removing it and loosening up the ureter all symptoms were relieved. Of course the patient had all the typical symptoms of a stone in the ureter.

I appreciate the paper very much, and I hope that this work will keep on as a means of helping us to make positive diagnoses, as that is the main thing in all our work.

Dr. Pearse, of Kansas City: The paper is one of those that has suffered from our section work. Such a paper would do a vast amount of good if it were heard by the gentlemen in the medical section, and to illustrate that, I wish to tell of an occurrence that happened to me about two months ago. A man came to me suffering with right-side pain and rigidity of muscles and a general assembly of symptoms that led to a diagnosis of appendicitis. This diagnosis had been made by two different surgeons, but his doctor, a medical man purely, was not satisfied because he insisted that his patient's pain, although located in the region of the appendix, always started under the ribs on the right side. In consequence of that, he kept on hunting until he landed his patient in the office of an x ray man, of his own accord, without the assistance of any surgeon. The x ray discovered to the practitioner and to his patient (and it was made known to the surgeons who had examined him) a ureteral stone lying about half way from the ureter to the bladder. An operation cured him, without showing any involvement of the appendix. In this case the medical man was the one who went to the x ray man, after two competent surgeons had passed the case up as one of appendicitis, on clinical symptoms alone.

THE RELATION OF SALTS TO THE HEART BEAT.

BY W. W. DUKE, KANSAS CITY, MO.

Much interest has attended the investigation of the various chemical factors which maintain and modify the heart beat. The researches of Meronowicz and of Ringer first brought to light the fact that the heart is independent of the immediate supply of organic material and that it will continue to beat for hours if furnished with a suitable solution of salts of sodium, potassium and calcium. Such a solution, however, cannot be considered an ideal medium, since it gives the heart no chance to replenish its energy, used in contraction. That it furnishes the heart favorable conditions for utilizing the energy stored in its tissue, however, may be seen from the experiments of Locke, Kuliabko, and Hering.

Locke was able to keep the rabbit's heart beating continuously for 72 hours by supplying it with a slight modification of Ringer's solution. Both Kuliabko and Hering, by forcing Ringer's solution through the coronaries, have revived the human heart many hours after death (36 hours and 18 hours), and the latter, in a similar manner, resuscitated the beat of a monkey's heart which had been on ice for three days.

The precise parts played by each of the elements, sodium, potassium, and calcium, are probably as follows: Sodium chloride (.9% in Locke's), besides maintaining the proper osmotic tension of the solution, has a specific action on the heart muscle. It is a necessary element for the beat; that is, it cannot be replaced to a large extent by lithium, dextrose, etc. (Lingle, Loeb.) Potassium and calcium, though present in Locke's solution in bare traces (.025% to .05%), are of the greatest importance in maintaining and regulating the beat. Each is a necessary element for continued activity. They are antagonistic in their influence. Potassium promotes relaxation and diminished tone, calcium promotes contraction and increased tone (Howell). The heart beating on an artificial circulation of Ringer's solution can be stopped or slowed by increasing the potassium or decreasing the calcium in the solution.

The effect of excessive potassium is shown in Fig. 1. This inhibition was brought about by momentarily increasing the potassium from .025 to .08%. Fig. 2 shows the effect of passing a calcium free solution through the heart. A moment before this record was taken the heart was beating strongly on normal Ringer's solution and a few minutes later, when a calcium containing medium was again established, the normal beat returned. As a corollary to this it may be added, that a decrease in the potassium increases the rate and tone, and an increase in the calcium augments the tone and force of the beat.

The remarkable augmenting influence of calcium is shown in Fig. 3. This was produced by momentarily increasing the calcium in the circulating medium.

For a continued regular beat the amount of potassium and calcium

present must be delicately balanced, for if the percent of potassium is too low, the calcium present tends to bring about a rigor. Likewise, if the potassium is present in a physiological amount and the calcium is too high, a rigor eventually appears. Prof. Howell gives a most satisfactory discussion of the influences of these salts on the heart in *Jour. A. M. A.*, 1906, June 2-9, Vol. XLVI. No. 22-23.

Other factors which influence the normal beat are oxygen and hydroxyl-ions. Unless the heart can derive sufficient oxygen from the solution circulating through the coronaries it soon wears out. Alkalies are found to be the greatest cardiac stimulants. One cubic centimeter of a .1 per cent solution of sodium carbonate passed into the isolated heart produces an acceleration and augmentation of the beat which is remarkable. Figure 6 shows the result of an intravenous injection of sodium carbonate. Its use has been suggested in shock (Howell, Dawson).

Several observers (Botazzi, Howell, Martin) have mentioned the striking resemblance between the influence of potassium and calcium salts on the heart and that of the vagus and accelerator nerves. Fig. 1, produced by injecting a few cc. of .08 per cent potassium chloride into the coronaries of the isolated dog's heart, shows the curve of potassium inhibition. As soon as the excess of potassium was washed from the heart by the normal medium, the beat was immediately established. This inhibition apparently differs in no respect from vagus inhibition.

The curve of augmentation in Fig. 3 was produced by forcing a few cc. of .5 per cent of calcium chloride through the coronaries of an isolated heart. It shows the same increase in tone and in force of contraction that is seen in Fig. 4. The latter was produced by stimulating the accelerator nerve.

Recent researches of Prof. Howell, in some of which the writer assisted, throw some light on these points. It was shown by a delicate colorimetric analysis that the solution which issues from the coronaries after a long stimulation of the vagus nerve contains more potassium than the solution which flows out just previous to the stimulation. This excess of potassium was determined quantitatively and is thought to be sufficient in amount in itself to stop the heart. It seems, then, reasonable to say that stimulation of the vagus nerve causes a liberation of diffusible potassium salts into the heart muscle, probably by freeing it from some stable potassium compound there stored up, and that the potassium thus liberated is the inhibitory factor.

Some evidence was obtained to show that the augmentation of the heart beat following stimulation of the sympathetic nerve is due to the liberation of diffusible calcium salts into the muscle. This could not be tested as directly as was the liberation of potassium by the vagus, owing to the lack of delicacy of the method of analysis which was used in the determination of calcium. However, it was found that even under various experimental conditions curves of augmentation following an increase in the calcium salts of the circulating medium and those produced by

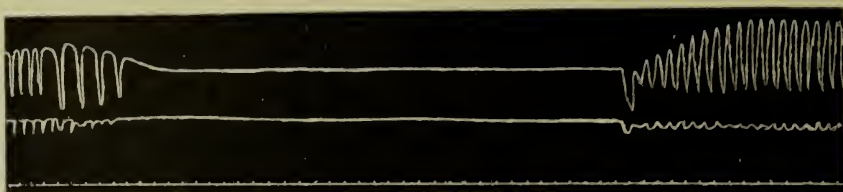


Fig. 1.—Potassium inhibition. The solution circulating through the heart contained NaCl. .9%, CaCl_2 . .023%, KCl. .025%. The arrest was caused by momentarily increasing the KCl. to .08%.



Fig. 2.—The inhibition here was caused by passing through the heart a calcium free solution (NaCl. .9%, KCl. .025%, CaCl_2 . .0%). The beat was revived later by adding the physiologic amount of calcium chloride to the solution.

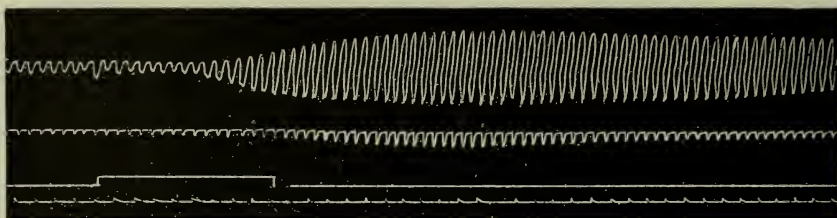


Fig. 3.—Calcium Augmentation. The circulation at first contained NaCl. .9%, CaCl_2 . .023%, KCl. .025%. The augmentation was caused by momentarily increasing the calcium to between .1% and .5%.

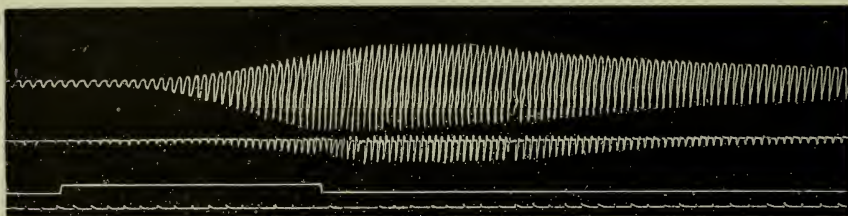


Fig. 4.—Sympathetic Acceleration. This curve of augmentation followed a stimulation of the accelerator nerve at the point indicated by the marking pen. Normal Locke's solution was circulated throughout.

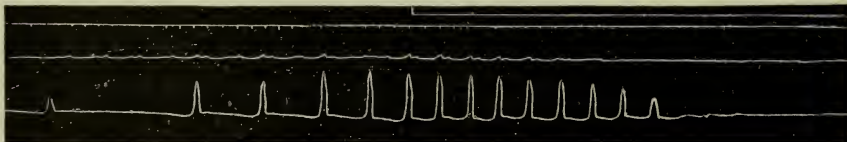


Fig. 5.—The heart at the beginning of the record was in a state of potassium inhibition. The solution contained NaCl. .9%, CaCl_2 . .023%, KCl. .075%. The return of the beat was caused by a strong stimulation of the accelerator. When the stimulus was cut off the heart was again inhibited by the excess of potassium.

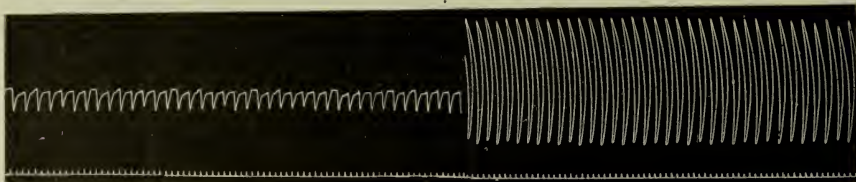


Fig. 6 shows the heart beat before and after an intravenous injection of sodium carbonate (Dawson). The effect is even more marked on the isolated heart.

stimulation of the accelerator nerve were strikingly alike. Fig. 5 shows, for instance, how the beat of the heart, in a state of potassium inhibition, can be brought about by stimulation of the accelerator nerve. The same can be accomplished by increasing the calcium salts in the medium. It may be possible, then, that stimulation of the sympathetic nerve dissociates some organic form of calcium stored in the heart, making it diffusible and that the calcium thus liberated results in augmentation of the beat.

If these statements are accepted, it is not so difficult to understand how the vagus nerve inhibits the heart while the accelerator nerve, carrying presumably the same nature of impulse and ending apparently in the same tissue, has the opposite effect. In the living animal both nerves are in tonic activity. The heart is, therefore, checked by the potassium of the blood and that liberated by the vagus nerve. It is presumably augmented by the calcium of the blood that which is liberated by the sympathetic nerve. The normal rate is the resultant of a delicate balance between these four important influences.

Calcium and potassium chloride given *intra vitam* do not exert the same influence as they do when given in an inorganic mixture to the isolated heart. The excess of these salts when injected in moderate amounts, is probably quickly absorbed by the tissues and, further, their physiological action is masked by the blood proteids. Records taken after the intravenous injection of moderate doses show only slight alterations in the beat. The effect is mainly on tone and is of short duration. (Cameron.)

The first five records were obtained from cats' hearts beating on an artificial circulation of Locke's solution established through the coronaries. The upper curve was taken by means of a recording tambour from the right ventricle. The lower one from the left auricle. The lowest line was made by the chronograph marking off intervals of one second. The one above it by the marking pen.

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THE EFFECT OF SURGICAL OPERATION ON DIABETIC PATIENTS.*

BY LOUIS T. RIESMEYER, M. D., ST. LOUIS.

The very variable results that follow operations on diabetic patients suggest the desirability of a careful scientific systematization of the many factors that may play a rôle in such results. The difficulty of an effective systematization is very great indeed. As one illustration of this difficulty serves, the fact that in patients whose diabetes is of a very light nature, or where the glycosuria has disappeared for years without much attention as to diet, operative measures may bring about a rise from no sugar at all to a degree of glycosuria that may be appalling. True, this occurs only in very few cases, but it serves as one illustration of the difficulties in the way of a correct, scientific interpretation of the many factors that may play a rôle in the prognosis. Moreover, some of the slightest minor operations on diabetic patients have resulted in coma, followed by death within a few hours to several weeks after surgical intervention.

Even in cases where the general constitution of the patients seemed to guarantee a good result coma and death has followed an operation. And this not only in cases where there was a focus of inflammation at the site of operation; but also where such a focus was absent. On the other hand, in some relatively far advanced cases, patients have made good recoveries so far as the results of operative interference are concerned; and, what seems still more surprising, in such cases the patients improved as to their diabetic symptoms. The surgeon who operates on an ingrown toe nail of a diabetic under local anesthesia cannot be certain of a good result even as far as the life of the patient is concerned. Hence the wisdom of preferring palliative means in this instance as well as in all other minor inflammatory foci that will yield to non-operative measures. It is a dangerous thing to send a diabetic to a corn-doctor. In cases of cataract operations and iridectomies, where local anesthesia had been employed, patients have succumbed to coma within a few hours after the operation. We all have repeatedly seen the dire results following the extirpation of a carbuncle or of amputations done for the removal of a gangrenous part of an extremity. In other instances such procedures were followed by most happy results as regards the surgical affection as well as the diabetes.

With the present light upon the subject the cases that promise a good result cannot be foretold with any degree of scientific exactness. Hence the wisdom of giving a cautious prognosis in every case and in operating only in such cases where it is absolutely necessary and unavoidable. In this class of cases, however, an operation should be urged with the same firmness as where there is no diabetes. More than this.

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

In diabetic patients any operation should be done at the earliest possible moment. No time should be wasted by preparing the patient for the ordeal. Worry and suspense weigh most heavily in the balance as regards life or death where diabetics are concerned; incomparably more so than in the case of non-diabetics. All not absolutely necessary preparations should be avoided. Physicking is ordinarily contraindicated, as it withdraws water from the tissues and weakens the resisting power of diabetic patients. Enemata should be avoided, if possible; they weaken a diabetic patient. Thirst predisposes to coma; so does hunger. Patients should not be starved longer than is absolutely necessary before an operation under general anesthesia. Withdrawal of food predisposes to coma by its weakening effect as well as by augmenting the percentage of acetone bodies in the blood.

General anesthesia, especially chloroform anesthesia, increases the danger of coma. Nevertheless, where ether is specifically contraindicated in non-diabetics, the same rule holds good in diabetics. Where there is permanent excretion of acetone bodies (oxybutyric acid, aceto-acetic acid, acetone) in a quantity corresponding to a daily excretion of four grams of ammonia, every general anesthesia is contraindicated; while in cases with an ammonia excretion of less than two grams, dietary measures are to be instituted (e. g., carbohydrates in some form) for the purpose of reducing the daily excretion of acetone bodies and thereby the danger of coma. The longer the narcosis, the greater will be the danger from coma, the general constitutional effects and the liability of an increase in the amount of sugar and acetone bodies in the urine.

Where inflammatory foci are to be dealt with, it may be advisable to diet the patient carefully by adequate withdrawal of carbohydrates; but by no means to an extent that the constitutional condition is weakened. With regard to this point there is much room for argument. To the internist the withdrawal of carbohydrates, for the purpose of increasing the tolerance for them, has no longer the significance as regards the risk of increasing the percentage of acetone bodies in the blood that it used to have before von Noorden pointed out the unnecessary fear of the increase of acetone bodies when carbohydrates are temporarily withheld. But the surgeon has to deal with an entirely different problem. If he withdraws carbohydrates from the diet of his patient, he removes entirely or partly, sugar—a splendid culture medium for the growth of bacteria; but his patient, escaping the scylla of infection, sepsis—coma from sepsis, may fall a prey to the charybdis of coma from acidosis due to an aggravated form of diabetes, aggravated by the operative procedure. The sugar that the surgeon has removed from the patient's blood by dieting, perchance "may" reappear as a result of operation, in enormously increased quantities. Close observation of a sufficient number of cases in point may clear up this mooted question. Besides by acidosis, coma may be produced in diabetics by septic infection, arteriosclerosis and the concomitant heart and kidney affections. The main factors, then, as regards the danger of operation as an exciting

cause of coma are: the weakening of the system due to preparations before the operation; the sensory irritation produced by the operation; bleeding, anesthesia, the resulting shock and the psychical effect before and after operation. All these factors, separately or combined, may bring about a change of metabolism that seals the patient's fate. The fact that in very slight operations, where a general anesthetic is administered, the patient may die from coma, would speak for the decided effect of the anesthetic upon metabolism; and the fact that a slight operation under local anesthesia, even in the absence of an inflammatory focus, results in some instances in coma and death in a few hours, speaks equally convincing for the decided irritation of the nervous system brought on by psychical excitement—an irritation that is liable to produce a rapid and decided change of metabolism.

The predisposing factors, as regards the effect of operation on diabetic patients, are: the constitution of the patient, the amount of neurasthenia, general weakness, fear, loss of alkaline salts of the tissues and the resulting impoverished nutrition, especially of the nervous system, acidosis, glycosuria, arteriosclerosis, heart and kidney affections.

In order to overcome the difficulties presented by operative measures, the time required for operating should be reduced to a minimum by avoiding all not absolutely necessary procedures.

After what has been said, the handling of the two classes of operative cases in diabetics, the affections resulting from the diabetes and those complicating the disease, almost suggests itself.

In gangrene, wait for line of demarcation before amputating at this line, in order to make sure that the circulation is sufficient to ensure vitality of the tissues. Exceptions to this rule are, progressive phlegmonous processes, lymphangitis, danger of sepsis. In selecting the site for amputation, two postulates are to be met. There must be no suspicion of the presence of bacteria in the tissues, and the circulation must be sufficiently active.

Inflammatory and gangrenous processes are most to be feared. Furuncles should not be incised. If they do not heal by mere cleanliness and mild antiseptic applications, they should be extirpated, operating in healthy tissue. Carbuncles, too, should be excised. In all cases where one may operate without fear of bacterial invasion of the operative field, a radical operation is, *ceteris paribus*, indicated, if the constitution of the patient permits the procedure. For instance, in rectal carcinoma, on account of the danger of infection, do not extirpate but make an anus praeternaturalis. In carcinoma of other parts of the digestive tract extirpation should be done. For the sake of brevity, these two examples may suffice as an illustration. Individualization will readily suggest in other cases, what course it is best to pursue. A very good suggestion is the use of the thermocautery instead of the knife, whenever this be feasible. The thermocautery especially is indicated in cases of arteriosclerosis in order to prevent hemorrhagic foci with subsequent gangrene.

Sutures may have to be omitted entirely, or, at least, reduced to a minimum, whereby time is saved and gangrene avoided.

In case of acidemia large doses of bicarbonate of sodium in levulose lemonade should be administered with adequate restriction before and after operation—as much as three ounces of the alkali *per diem* have been recommended. According to Naunyn, such alkaline treatment prevents coma by increasing the reduced alkalinity of the blood. Von Noorden claims that, while alkalies will postpone the onset of coma, this feared condition will eventually supervene in spite of the alkaline treatment. Rest in bed is objectionable in diabetics, except in case of coma. The patients should get up out of bed as soon as feasible after operation. Nutrient enemata and food per os should be given as soon as the condition of the patient permits. As a rule, milk is the most appropriate diet after operation.

Thus the prognostic significance of operations on diabetic patients may be somewhat modified by sustaining the nutrition, the strength, resisting power of the body, preventing, counteracting acidemia and reducing infection and duration of operative procedures to a minimum.

2838 Lafayette avenue.

PERITONEAL TUBERCULOSIS.*

BY JOHN D. SEBA, M. D., BLAND, MO.

Primary peritoneal tuberculosis, like tuberculosis of any other part of the body, is due to the tubercular bacilli. The mode of infection differs somewhat from tuberculous infection of other parts of the body. In pulmonary tuberculosis, the infection generally occurs by the bacilli being inhaled, whilst in peritoneal tuberculosis it is generally conceded the bacilli enter the body with the ingested food or food stuffs, principally milk.

It is not the aim of the essayist to give any striking new theories, but rather elaborate on those already well known pathological conditions as they exist. Contrary to the general opinion that peritoneal tuberculosis is always associated with peritonitis, I believe that post-mortems will prove the contrary; at least those cases upon which the author has performed post-mortem examinations have lacked all the elements of peritoneal inflammation, such as heat, pain, redness, hypertrophy or swelling. The perietal peritoneum, mesentery, and viscera, all looked pale and bloodless, and studded all over with miliary tubercles. They are found throughout the whole peritoneal cavity; they are in the coats of the intestines, in the mesentery, perietal peritoneum, in the walls of the stomach, the liver and spleen, the liver very often is much enlarged, reaching down to the umbilicus and even in the left side over the spleen. Morbid adhesion between the liver and stomach very often takes place, with poliferation in the walls of the stomach; when this takes place we are apt to have bleeding from the liver into the stomach, the blood being vomited, very often leading to an erroneous diagnosis of cancer of the stomach. The author has known a case where as much as a half gallon of blood was vomited at a time.

There is no doubt in the mind of the author that primary peritoneal tuberculosis has its most common cause in the use of tuberculous milk; it is of course possible that the infection could occur by partaking other articles of food infected with the tubercle bacilli, but I believe it to be the exception rather than the rule.

A vast majority of the cases that come under observation are infants, but older persons are not exempt from the disease.

The diagnosis of peritoneal tuberculosis is very difficult during its incipency, and even after the disease has progressed to where nearly all hope of a cure has been abandoned, the diagnosis is very often in doubt. In fact a post-mortem is necessary to confirm a suspicion of the disease. As a rule whenever the attending physician encounters a chronic bowel trouble, with obscure and ill-defined symptoms, it behooves him to make extraordinary efforts to ascertain the nature of the trouble.

*Read by title at the Fiftieth Annual Meeting, Jefferson City, May, 1907.

With this end in view it is well to have the milk on which the baby is fed examined with the microscope for the tubercle bacilli. If it is found, this at once clears up the diagnosis, for no intelligent physician at this day would doubt that a baby that is persistently fed on tuberculous milk will be infected with tuberculosis. It has been within the last few years, or since I began to hold post-mortems upon my obscure cases, that I realized the real situation, and found that peritoneal tuberculosis was more extensively distributed than is supposed by the average physician.

The symptoms of peritoneal tuberculosis are hard to define, are not very characteristic, and it is only by considerable experience and close observation, that the disease can be diagnosed. The microscope will clear up the matter if the tubercle is detected in the milk on which the baby is fed, or in the nursing mother's milk. Outside of this there is nothing characteristic that would give a positive diagnosis, the tubercle bacilli in the peritoneal cavity are not subject to microscopical examination; the stools very seldom contain the bacilli, the temperature as a rule does not run very high, only occasionally it runs up to 101 or 102; the bowels are generally constipated, requiring castor oil to get a daily action; the stools are as a rule very slimy, most of the time greenish, with exfoliation of the intestines. The liver as a rule begins to enlarge; the margin of it can be felt an inch or two below the margin of the ribs, and its advancement is towards the left; in older people the diagnosis of cancer of the stomach is generally made, and unless there is a post-mortem the error is never discovered.

As to the treatment it is entirely symptomatic, and palliative; no treatment known is of avail to stay the ravages of peritoneal tuberculosis; slowly the disease progresses to a fatal termination.

Our efforts should be in the way of prophylaxis. All milk fed to babies should be examined for tubercle bacilli, and if found the animal giving such milk should be condemned to death and killed. Where a mother or nurse gives tuberculous milk, she should not be permitted to nurse a baby.

With your permission I will report a few cases briefly.

Eva F., infant, was suffering from chronic bowel trouble; temperature, 99, sometimes above and sometimes a little below; constipated, with greenish, slimy stools; child profoundly anemic; some edema of hands and feet, the edematous tissue looking somewhat glistening; there was occasional trismus or slight spasms. Diagnosis, gastro-intestinal enteritis. Death was due to exhaustion. The post-mortem disclosed a very extensive tuberculous peritoneum, the tissues were not red, but on the contrary were very pale, and the whole peritoneum both visceral as well as parietal, was studded with miliary tubercle. This baby was being nursed by its mother. The mother's milk and sputum was examined and the tubercle bacilli were found. This was the first intimation that the mother was tuberculous.

C. S., aged 47 years, began to fail in health, became pale and anemic. He complained mostly of stomach trouble, claimed he could not digest his food, which would sour and ferment, with occasional vomiting. Palpation over the region of the stomach revealed a mass over the pylorus, which gradually extended all over the stomach; vomiting of blood was very frequent and at times he would vomit as much as one-half gallon of blood. The mass in front of the stomach was mistaken for enlargement of his stomach and the vomiting of blood was mistaken for hemorrhages from the walls of the stomach. He died from exhaustion and anemia. The post mortem revealed that he was suffering from extensive peritoneal tuberculosis; the liver, spleen, omentum and mesentery were studded with miliary tubercles. There were morbid adhesions between the liver and the walls of the stomach and the hemorrhages, taken as hemorrhages from a cancerous stomach, were in reality hemorrhages from the liver into the stomach, due to tuberculosis of that organ. In this connection it is well to bear in mind that with tuberculosis we very often have hemorrhages, and these hemorrhages need not necessarily be from the lungs. I will further state that in this particular case there were no symptoms that lead us to suspect pulmonary phthisis, and the post-mortem did not reveal any affection of the lungs. We could not positively ascertain the source of infection, but we believed that it was from the drinking of tubercular cow's milk.

In conclusion, permit me to say, be slow in making a diagnosis in your obscure cases, but use all means to ascertain the cause of the disease. Whenever a correct diagnosis is established, then go after it with all the power and enthusiasm at your command.

LET US GET CLOSER TO THE PEOPLE.*

BY T. L. BRADLEY, M. D., OF WARRENSBURG, MO.

The majority of the members of the profession, in the writer's opinion, are guided by the code of ethics, but the question is raised as to whether the code in its present form is adapted to the many phases of professional life, or should the code be changed to suit present conditions. The author believes some changes could be made and particularly in one respect, namely, to enable the profession to come into more intimate relationship with the people.

Much has been said in favor of a more general dissemination of information on medical topics, but very little has really been accomplished in this direction by the organized medical profession. As a rule the knowledge which reaches the public concerning the care of the sick, comes through articles written in newspapers. These are generally garbled accounts of the subject discussed, inaccurate and unreliable, or prepared for the purpose of exploiting some pet theory not founded upon established scientific facts. The public forms its own opinions from such accounts, being unable to distinguish between the true and the false in these matters, and the profession then finds itself placed in the position of being compelled to combat the wrong impressions made upon the minds of the people, and the prejudices that invariably follow. The author quotes the words of Dr. Wm. J. Mayo who said: "That the people are ignorant of medical affairs is due to bad education rather than prejudice. They are more than two decades behind advanced medical thought. It is our duty to keep them better informed. We have permitted the public to be educated by patent medicine advertisements and the voluble charlatanism of the commercially interested. The time has come for the public to be taken into our confidence; if we wish better results we must enlighten the people." Dr. Bradley then suggests that every local society should be a bureau of information on all matters in which the public should be instructed, and that this information should emanate from the society as a body, never from individual members. Articles in the local newspapers and frequent public meetings would be profitable for both the public and the profession.

*Abstract of paper read by title at the Fiftieth Annual Meeting, Jefferson City, May, 1907.

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EDITORIAL

"PROFESSIONAL JEALOUSY."

Professional jealousy is the cry that was raised by an advertising healer, arrested in St. Louis recently by the Federal authorities upon the charge of misusing the mails, and an evening newspaper, commenting editorially upon the action of the Government in this case, suggests that it is the result of personal animosity,—presumably of physicians.

Ordinarily the blatant cry of an unmasked conjurer and the back-handed slap of an evening paper might be allowed to pass without notice, but we cannot let slip the opportunity to descant upon a phase of this question, generally lost sight of by non-medical persons. Let us remark at the outset that there never has been, never will be, and never can be an iota of jealousy on the part of any true physician toward the advertising doctor. One is in *business*—for the money there is in it; the other makes the practice of medicine his profession,—of which, further on, we shall have more to say.

The methods adopted by this person to inveigle the unwary to place themselves under his charge, differed from the customary procedures followed by the ordinary advertising doctor only in degree. The end result sought for is the same in all cases, and that is, a large and rapid inflow of lucre,—the more rapid the flow (inwardly) and the larger the amount thus garnered, the more successful does he who indulges in this sort of practice account himself.

Truly if success ever can be measured alone by the number of dollars amassed in a business pursuit, it is in this business of the advertising doctor. The successful merchant is proud of having marketed goods that were worth all that he received for them, the honest mechanic gives full time for money paid him, the laborer in the streets expects and receives only the amount that he earns, but who shall say what the advertising doctor—the doctor who is in the practice of medicine as a business and not as a profession—who shall say what he gives for the money he receives? And why do we feel thus toward the advertising doctor? Because we know how helplessly, how childishly, simple and dependent people are when they are sick, particularly poor people; and because we know that the great majority of advertising doctors strip the poor deluded persons of the last dollar that can be wrung from their lean pockets, and having thus relieved them—not of the ills that afflict their flesh—turn them adrift to become, perhaps, a public charge, if they are incurable, or to get well under the charitable care of a scientific physician, if curable.

The distinction between the practice of medicine as a profession and the practice of medicine as a business is this—that he who makes the practice of medicine his profession voluntarily and consciously consecrates himself to the uplift of mankind, physically, mentally and morally, with or without monetary recompense as the circumstances permit; while he who enters the field of medicine for the purpose of amassing riches degrades the noble art to a business level and ceases to be of the profession; he becomes at once a business man. The path of the true physician is illumined by the glow of happiness that suffuses countenances once distorted with anguish; the shimmer of gold is the guiding light of the business doctor. And whether in business, trade or profession, he who loves gold better than he loves truth will surely transgress the law of God, though he may escape the meshes of the law of man.

Again, the advertising doctor is not a progressive physician, although as a rule he proclaims himself better informed in the science of medicine than any other person in the community. A single example will suffice to make this clear. Not long ago an intelligent, skilled mechanic asked our opinion of the advisability of permitting a certain advertising doctor to cut out some polyps from his nose. Immediately there arose in our mind the question, how do you know that you have polyps? He did not know, but the advertising doctor said he had. He was advised to consult a physician of known reliability and learning, which he did and it was found that his affliction was something quite different from polyps and required altogether different treatment. This was not a case of error in diagnosis; it was pure ignorance, plus greed and avarice.

And so we say again, there is no such thing as professional jealousy between the advertising doctor and the true doctor of medicine. If physicians were not what they are (and here we speak only of those who have a true concept of the high calling which they follow), if the great body of the medical profession were not the self-sacrificing servants of humanity that they are, if they loved gold better than they loved truth, if they labored more for self and less for the benefit of their fellow men, they would have no better friend than the advertising doctor, for the patrons of the latter come finally to the care of the former, and usually in a more desperate condition than at the beginning; entailing longer attention and the expenditure of a greater amount of money. The people of this country do not know, perhaps they can never know in the sense of being conscious of their debt, the magnitude of the service freely given by the medical profession to lift them out of and beyond the realm where cankerous disease tortures the flesh.

The pity of it all is that the proprietors and editors of most of our great daily papers are not ignorant of these facts and, generally speaking, they share our abhorrence of this class of arrogant braggarts. Yet the newspapers prolong the sufferings of many innocent souls by nurturing the advertising doctor.

Will the public and the press ever learn that the true physician immolates himself on the altar of the public weal?

UNSANITARY RAILROAD CARS.

Are head-end collisions and thrown switches more fatal to human life than plush seats and sputum-stained carpets? The fatality of one has its carefully kept records, the other is lost in obscurity and is engraven only on broken hearts. Death is death, it does not matter whether it be in the midst of a railroad wreck or the throes of tuberculosis contracted in a Pullman car.

The unsanitary condition of railroad cars as a factor in the spread of disease is a serious feature of travel, yet the railroad companies have hitherto failed to apply those safeguards which the enlightened sanitary science of to-day clearly shows are effectual and unailing. From smoker to sleeper disease rides in every car. Persons afflicted with microbic and bacterial diseases ride for hours and even days in the same cars with people who are perfectly well and free from infection, among whom many may be susceptible to invasion. Who shall say how many cases of consumption had their origin in a railroad car? Patients in the last stages of consumption are transported across the country and death not infrequently claims its victim ere home and friends can be reached. A recent instance was that of a young girl placed on the cars by unfeeling

persons and permitted to undertake a journey of a thousand miles, unattended and in such an exhausted state that she died before arriving at her destination, too weak, as the spark of life faded rapidly away, to reveal her identity.

Although the railroad companies have multiplied the comforts of travel many times when compared with the crude facilities of a quarter of a century ago, they have failed to realize their high responsibility for the preservation of health and the spread of disease, and continued to carry passengers in cars that were not properly disinfected. We do not mean to say that no attempt at all has been made by the companies to disinfect their passenger cars, but their work in this direction has been done mainly from an economical standpoint for the preservation of their property; the fundamental principles governing the prevention of disease and the protection of health by the approved methods of present day sanitary science were practically ignored. It gives us pleasure therefore to record the action taken at the last meeting of the State Board of Health, establishing rules and regulations governing the sanitary care of railroad cars and way stations in Missouri. On another page we print these rules and regulations in full. It is worthy of mention that the railroad companies readily consented to be governed by the Board's action.

Of course this will go a long way toward protecting the traveling public. It seems to us, however, that a more effective method of minimizing the dangers of transporting persons afflicted with contagious and infectious diseases in their active stages, would be to establish separate compartments in certain railroad cars and require all such persons to ride in these compartments. In this way the dissemination of disease would be confined to a known locality which could be readily disinfected. To illustrate the importance of such an arrangement we might instance the case of a man who was afflicted with glanders. The patient was a rich farmer who had contracted the disease from his mules, nine of which had died from glanders. This man traveled on the train and yet he was so afflicted that the physician whom he consulted, fearful of the contagion, refused to accept any money from him.

The day has come when railroads must begin a clearing-up crusade against the germ-bearing car.

THE "PHENOMENAL" KRAUSS.

R. J. ("phenomenal") Krauss, St. Louis' most shameless medical advertiser, has been arrested by the Federal authorities charged with misusing the mails. This step, we hope, marks the beginning of the end

to a career which has caused all clean-minded people, lay and medical, to blush for the fair name of our city.

Krauss' methods of advertising his business did not take the ordinary form usually followed by advertising doctors. Scorning the commonplace advertising in the regular display advertising columns of newspapers, Krauss' advertisements were written in the third person and were published in the regular news columns of the newspapers, with headlines similar to the type used for headings to legitimate news items; thus a cursory reading would leave the impression that the article was written by some person connected with the paper and that it was published as a bit of local news. The only mark in the whole article which showed it to be an advertisement was the insertion of three asterisks at the end. To the initiated this at once stamped it as advertising matter, but few indeed realized the import of these little stars, and usually, of course, they were overlooked altogether. This form of advertising should be suppressed by the newspapers. It is reprehensible at all times and is particularly obnoxious in medical advertising.

THE SPRINGFIELD MEETING OF THE STATE ASSOCIATION.

The committee of arrangements announces that all plans for the entertainment of the Association at Springfield have been completed and everything is in readiness. The general sessions will convene in the Baldwin Theatre Building, the Surgical Section will meet in the Y. M. C. A. Building and the Medical Section will meet in the Springfield Club rooms. The Colonial Hotel is headquarters. All meeting places are in close proximity to the hotel, the Baldwin Theatre being next door, the Y. M. C. A. Building just across the street and the Springfield Club one block distant.

While the first day will be devoted to the business affairs of the Association in the House of Delegates and the Judicial Council, members are urged to be present on this day in order to listen to the proceedings of these two bodies and hear the address of the president and the orations on medicine and surgery on the evening of this day. Wednesday evening the antituberculosis societies will have a general meeting in the Baldwin Theatre. Every member of the Association is interested in the progress of the crusade against tuberculosis and this meeting will demonstrate the great work that is being done in this direction. The Medical and Surgical Sections have a total of 105 papers scheduled for reading, a splendid tribute to the great interest now manifest in Association work.

The list of hotels and boarding houses is published in the program. Dr. J. R. Boyd is secretary of the local committee on arrangements and will gladly and promptly answer all inquiries for further information; members of this committee will be present at the Information Bureau during the meeting.

There will be no entertainments of an official nature but the alumni associations of medical colleges will enjoy reunions around the banquet table.

ROSTER OF MEMBERS.

In this issue we publish a complete roster of members who have paid dues up to the time of going to press. All members not represented in this list are delinquent in their county societies and cannot therefore be counted as members of the State Association, nor can they obtain membership in the American Medical Association, until their dues are paid to their local society. After this issue no copies of the JOURNAL will be sent to delinquent members.

We urge all who have neglected to pay their dues to do so at once; thus they will enjoy all the benefits of affiliation with the organized profession of the State, without interruption, and the Association will be strengthened. Every reputable physician in the State profits greatly by membership in the organized body of the profession and the profession needs and deserves the support of every reputable physician in the State. Again, therefore, we urge all delinquent members to pay their dues promptly.

COUNTY SECRETARIES' ASSOCIATION.

A meeting of the County Secretaries' Association will be held at Springfield on May 20th at 6 p. m., arrangements being made for a dinner at that hour at the Colonial Hotel, for which a charge of one dollar per plate will be made.

All secretaries and councilors are requested to be present.

At this meeting permanent organization will be effected and plans discussed for the future work of the Association.

TANEY COUNTY ORGANIZED.

Dr. T. A. Coffelt, Councilor of the Twenty-Eighth District, reports the organization of Taney County Medical Society. With the affiliation of Taney County, the Twenty-Eighth District is fully organized, each of the seven counties having a local medical society in affiliation with the State Association. We welcome the affiliation of Taney County Medical Society with our Association and shall look forward to the publication of the reports of work done by our members in Taney County. Following is a list of the charter members: Drs. Charles W. Burdett, Branson; Elizabeth McIntyre, Branson; R. M. Irwin, Gretna; Guy B. Mitchell, Forsyth; O. C. Houston, Forsyth; F. V. Baldwin, Forsyth; J. P. Compton, Branson; H. Humphreys, Kisse Mills; J. O. Nicholson, Protom.

The officers for 1908 are: President, Dr. Charles W. Burdett, Branson; vice-president, Dr. J. O. Nicholson, Protom; secretary, Dr.

Elizabeth McIntyre, Branson; treasurer, Dr. J. P. Compton, Branson; delegate to the State Association, Dr. Charles W. Burdett, Branson.

TO THE GRADUATES OF THE MISSOURI MEDICAL COLLEGE.

A banquet will be given by the Alumni Association of the Missouri Medical College on Wednesday, May 20th, at the Springfield Club, six o'clock p. m., during the State Medical Association at Springfield. All graduates of the Missouri Medical College who desire to attend and participate in this banquet, are urgently requested to forward, at once, name and address with \$1.50 to Dr. T. A. Coffelt, Springfield, Mo., in order that arrangements may be completed.

TO GRADUATES OF MEDICAL DEPARTMENT ST. LOUIS UNIVERSITY.

The St. Louis University Alumni will meet at a luncheon at the Springfield Club at noon on Wednesday, May 20th, at Springfield. All graduates of Marion Sims Medical College, Beaumont Hospital Medical College and of the Medical Department St. Louis University, are invited to be present.

Members attending the Springfield meeting may have important mail and telegrams addressed to them at Springfield, care of the Information Bureau, Colonial Hotel.

The annual meeting of the American Medical Editors' Association will be held at the Auditorium Hotel, Chicago, May 30th and June 1st. An interesting program has been arranged for the occasion and all members are urged to be present.

The Senate has passed the bill providing a pension of \$125 monthly for the widows of Drs. James Carroll and Jesse W. Lazear; it received the unanimous approval of the members of the Senate. The bill will come before the House of Representatives for passage after being reported by the Committee on Pensions and we anticipate favorable and prompt action by that body.

"Dr." J. H. Cantlon, formerly of Cape Girardeau, has been apprehended and is now under arrest at Cape Girardeau. Cantlon gave bond

to appear for trial on the charge of practicing medicine without a license but did not appear when his case was called. We understand the prosecuting attorney of Cape Girardeau will take measures to prevent Cantlon from escaping trial a second time.

New and non-official remedies approved by the Council on Pharmacy and Chemistry:

Aromatic Cordial P-M Co. (Pitman-Myers Co.)

Oleum Ricini Dulcis P-M Co.

Atoxyl Hypodermic Tablets 1-3 grain (Koechl & Co.).

Novacaine Hypodermic Tablets 1-3 grain (Koechl & Co.).

Dry Peptonoids (Soluble), Arlington Chem. Co.

The Emperor of Germany has recently appointed a group of the most prominent physicians and laymen as delegates to the International Congress on Tuberculosis that convenes in Washington, September 21st. As the summer campaign draws near, interest in the coming Congress gains headway. We have received letters from the Transportation Committee requesting us to give them the number of those going from Missouri. We should muster a delegation of not less than two hundred. Most of those should be laymen. Let every physician in his community urge at least one layman to join the Congress and be present at the meeting. Send communications to Dr. John S. Fulton, 714 Colorado Building, Washington, D. C.

In this important, world-wide move, let us show our keen interest by our attendance.

Prof. August Martin, emeritus professor of gynecology in the University of Greiswald, and well known all over the world as the editor of the *Monatsschrift fuer Geb. und Gyn.*, spent Sunday and Monday, April 19th and 20th, in St. Louis. A reception in his honor was given by the Obstetrical Section of the St. Louis Medical Society. He visited the Skin and Cancer and St. Anthony's Hospitals and the Medical Departments of Washington and St. Louis Universities, and had many words of praise for the beauty of the city and the excellence of the facilities for teaching medicine.

Dr. Robert Koch, of Berlin, the noted German scientist, is touring this country enroute to Japan. Dr. Koch rested in St. Louis for a few days and visited his relatives in that city. The medical profession of St. Louis made considerable preparation to honor this eminent man, who contributed so much to the advancement of medical science, and planned a large banquet for his entertainment, but Dr. Koch refused to permit any public demonstration in his honor.

SANITARY RULES FOR RAILROADS IN MISSOURI ADOPTED BY UNANIMOUS VOTE OF THE STATE BOARD OF HEALTH.

The State Board of Health shall have general supervision over the health and sanitary interests of the citizens of the State. (Article 1, Chapter 3, Section 7529, Revised Statutes of 1899.)

Acting in harmony with this section of law, the following rules are hereby established by the State Board of Health governing the sanitation of steam railway coaches, dining cars, sleeping cars and all waiting rooms and stations located in towns, villages and cities in Missouri.

Rule 1. Steam Railway Coaches. Day coaches shall be thoroughly cleaned at the end of each trip, and in no instance shall a day coach go uncleaned longer than two days. Water coolers shall be frequently emptied, rinsed and scalded, and shall be filled with potable water when in service. Day coaches shall be disinfected with formaldehyde gas, in quantities of not less than 40 fluid ounces of 40 per cent. formaldehyde to each coach, at the period of general cleansing and renovation, said period not to exceed 90 days, and also whenever a case of any listed disease is known to have been carried.

There must be one spittoon for each seat in smokers, which must be cleansed each day and at least 2 oz. of some approved antiseptic placed therein.

Rule 2. Parlor, buffet and dining cars shall be cleansed at cleaning terminals as set forth in rule 1; carpets and draperies to be removed, dusted, sunned and aired, provided meteorological conditions permit. Closets, drawers and cupboards to be cleaned, scalded and treated with a 1 or 2 per cent. solution of formaldehyde at least once each week in spring, summer and autumn months, and every two weeks in winter months. Food boxes and refrigerators to be scalded and treated with some approved antiseptic at least once a week during the spring, summer and autumn months and twice a month during the winter months.

Rule 3. Placards shall be displayed in all railway coaches in Missouri having plainly displayed thereon, the following notice:

SPITTING ON THE FLOOR IS FORBIDDEN.

Consumption, lagrippe, coughs, colds and all diseases of the air passages are spread by spitting, and these maladies kill 10,000 people annually in Missouri. It is therefore forbidden to spit on the floor.

Penalty, five dollar fine.

It is the duty of trainmen to warn against violating this health rule. By order of the

MISSOURI STATE BOARD OF HEALTH.

Rule 4. All waiting rooms and stations located in towns, villages and cities in Missouri shall be kept clean and in sanitary condition, and provided with spittoons, and when any listed disease is known to have been in a waiting room it shall be thoroughly disinfected with formaldehyde gas, as described in Rule 1. A placard shall also be displayed in all waiting rooms and stations having plainly displayed thereon the following notice:

SPITTING ON THE FLOOR IS FORBIDDEN.

Consumption, lagrippe, coughs, colds and all diseases of the air passages are spread by spitting, and these maladies kill 10,000 people annually in Missouri. It is therefore forbidden to spit on the floor.

Penalty, five dollar fine.

It is the duty of station employees to warn against violating this health rule. By order of the

MISSOURI STATE BOARD OF HEALTH.

Rule 5. These rules shall not apply to steam and electric railways operated entirely within any municipality in this State.

Rule 6. The listed or contagious diseases are smallpox, diphtheria, membranous croup, scarlet fever, yellow fever, typhus fever, cholera, bubonic plague and leprosy.

Fifty-First Annual Meeting
MISSOURI STATE MEDICAL ASSOCIATION
Springfield, May 19, 20 and 21, 1908

OFFICERS, 1907-8

PRESIDENT.

W. S. ALLEE, M. D. Olean

VICE PRESIDENTS.

THOS. B. COOKE, M. D. Rayville
 A. H. VANDIVERT, M. D. Bethany
 CHAS. HOUGH, M. D. Jefferson City
 J. P. DUNNIGAN, M. D. Sullivan
 O. F. PILE, M. D. Memphis

SECRETARY.

A. W. MCALESTER, Jr., M. D. Kansas City

ASSISTANT SECRETARIES.

PAUL Y. TUPPER, M. D. St. Louis
 GAIL ALLEE, M. D. Lamar

TREASURER.

J. FRANKLIN WELCH, M. D. Salisbury

MEDICAL SECTION.

Chairman: T. F. LOCKWOOD, M. D. Butler
 Secretary: GAIL ALLEE, M. D. Lamar

SURGICAL SECTION.

Chairman: H. E. PEARSE, M. D. Kansas City
 Secretary: P. Y. TUPPER, M. D. St. Louis

ORATORS.

Oration on Medicine: JOHN H. DUNCAN, M. D. St. Louis
 Oration on Surgery: HERMAN E. PEARSE, M. D. Kansas City

COMMITTEES

ARRANGEMENT COMMITTEE.

MEMBERS OF GREENE COUNTY MEDICAL SOCIETY.

COMMITTEE ON SCIENTIFIC WORK.

H. E. PEARSE, M. D. T. F. LOCKWOOD, M. D.
 P. Y. TUPPER, M. D. GAIL ALLEE, M. D.

PUBLICATION COMMITTEE.

W. B. DORSETT, M. D., Chairman.
 M. B. CLOPTON, M. D. M. C. SHELTON, M. D.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

C. E. FULTON, M. D., Chairman.
 H. E. PEARSE, M. D. GEO. W. WILSON, M. D.

COMMITTEE ON MEDICAL EDUCATION.

N. B. CARSON, M. D., Chairman.
 C. M. JACKSON, M. D. E. W. SCHAUFFLER, M. D.

COMMITTEE ON TUBERCULOSIS.

WM. PORTER, M. D., Chairman.
 W. M. BAYLISS, M. D. J. B. NORMAN, M. D.
 M. P. OVERHOLSER, M. D. TINSLEY BROWN, M. D.

PROGRAM

GENERAL SESSIONS

Baldwin Theatre

TUESDAY, MAY 19TH—7:30 P. M.

Address of President.....W. S. ALLEE, M. D., Olean
 Oration on Medicine.....JOHN H. DUNCAN, M. D., St. Louis
 Oration on Surgery.....HERMAN E. PEARSE, M. D., Kansas City

Baldwin Theatre

WEDNESDAY, MAY 20TH—8:00 P. M.

ANNUAL MEETING (PUBLIC) OF MISSOURI ASSOCIATION FOR
 THE PREVENTION AND RELIEF OF CONSUMPTION.

President's Address.....GEORGE HOMAN, M. D., St. Louis
 Secretary's Report.....R. L. NEWTON, St. Louis
 Report of Local Associations.
 General Business.
 Stereopticon Illustrations.

Springfield Club

THURSDAY, MAY 21ST—9:00 A. M.

Election of President.
 Election of Orator on Medicine.
 Election of Orator on Surgery.
 Selection of place of next meeting.

PROGRAM

FIRST DAY—TUESDAY, MAY 19TH.

- House of Delegates called to order at 9:30 a. m.
 - Judicial Council called to order at 9:30 a. m.
 - Roll call.
 - Reading of minutes of previous meeting.
 - Reading of President's message and recommendations.
 - Report of Committee on Arrangements.
 - Report of Committee on Medical Education.
 - Report of Committee on Scientific Work.
 - Report of Committee on Public Policy and Legislation.
 - Report of Publication Committee.
 - Report of Special Committees.
 - Report of Treasurer.
 - Report of Secretary.
 - Election of Committee on Nominations.
 - Election of Delegates to American Medical Association. (Two to elect to serve two years.)
 - Proposed amendments to the Constitution and By-Laws.
 - Reading of Resolutions, Memorials, etc.
 - Miscellaneous business.
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Report of Councilors

- 1st District.....C. L. Evans, Oregon
- 2nd District.....W. T. Elam, St. Joseph
- 3rd District.....G. W. Whitely, Albany
- 4th District.....C. R. Buren, Princeton
- 5th District.....E. E. Parrish, Memphis
- 6th District.....H. Jurgens, Edina
- 7th District.....L. W. Dallas, Hunnewell
- 8th District.....W. B. Dorsett, St. Louis
- 9th District.....Woodson Moss, Columbia
- 10th District.....C. W. Reagan, Macon
- 11th District.....J. D. Brummall, Salisbury
- 12th District.....E. H. Miller, Liberty
- 13th District.....N. P. Wood, Independence
- 14th District.....C. T. Ryland, Lexington
- 15th District.....M. P. Overholser, Harrisonville
- 16th District.....J. R. Buchanan, Nevada
- 17th District.....R. D. Haire, Clinton
- 18th District.....Frank DeVilbiss, Eugene
- 19th District.....G. Ettmueller, Jefferson City
- 20th District.....F. J. Lutz, St. Louis
- 21st District.....B. M. Hypes, St. Louis
- 22nd District.....J. D. Porterfield, Jr., Cape Girardeau
- 23rd District.....T. C. Allen, Bernie
- 24th District.....J. J. Norwine, Poplar Bluff
- 25th District.....Frank Harrison, Farmington
- 26th District.....R. L. Johnson, Rolla
- 27th District.....H. C. Shuttee, West Plains
- 28th District.....T. A. Coffelt, Springfield
- 29th District.....A. R. Snyder, Joplin

MEDICAL SECTION

Springfield Club

SECOND DAY—WEDNESDAY, MAY 20, 1908.

MORNING SESSION—9:00 O'CLOCK.

1. The State's Responsibility to Its Citizens from a Medical Stand-point.....J. A. McComb, M. D., Lebanon
2. Feeding Experiments on Animals Applied in Surgery and Internal Medicine.....Fenton B. Turck, M. D., Chicago, Ill.
3. The Treatment of Visceral Ptosis by Respiratory Exercises....
.....Chas. Shattinger, M. D., St. Louis
4. Myocardial Degeneration—Prophylaxis.....
.....B. H. Zwart, M. D., Kansas City
5. The Present Stand and Thought Regarding Opsonins.....
.....S. A. Johnson, M. D., Nevada
6. The Passing of an Old Therapy.....O. L. Peak, M. D., Springfield
7. Conservatism in Medicine.....W. L. Brosius, M. D., Gallatin
8. Syphilis of the Central Nervous System.....
.....C. R. Woodson, M. D., St. Joseph
9. Lupus Erythematosus.....Phillip Kanoky, M. D., Kansas City

SECOND DAY—WEDNESDAY, MAY 20, 1908.

AFTERNOON SESSION—1:30 O'CLOCK.

SYMPOSIUM ON TUBERCULOSIS.

10. The Application of Tuberculin to the Eye as a Means of Diagnosis.....A. W. McAlester, Jr., M. D., Kansas City
11. Roentgen Ray as an Aid to the Diagnosis of Tuberculosis of the Lungs, with Demonstration of Skiagrams.....
Wm. Engelbach, M. D., St. Louis, and R. D. Carman, M. D., St. Louis
12. Early Diagnosis of Tuberculosis and Use of Tuberculin in Diagnosis and Treatment.....E. H. Schorer, M. D., Columbia
13. Care of the Consumptive.....E. W. Schaffler, M. D., Kansas City
14. Public Education Against Tuberculosis Infection.....
.....T. F. Lockwood, M. D., Butler
15. Universities and Colleges as Factors in the Educational Campaign.....W. McN. Miller, M. D., Columbia
16. Report from the State Sanatorium for Incipient Tuberculosis....
.....O. H. Brown, M. D., Mt. Vernon
17. Clinical Reports from Mt. St. Rose.....S. Cameron, M. D., St. Louis
18. The Responsibility of Boards of Health.....
.....A. H. Hamel, M. D., DeSoto
19. Methods in Force and Proposed in St. Louis.....
.....H. Wheeler Bond, M. D., St. Louis

The discussion will be opened by Drs. L. M. Warfield, S. L. Baysinger, J. C. Eaton and J. M. Allen.

In order to afford ample time for discussion, the symposium will be called to order promptly and the time limit of papers, which is twenty minutes, will be observed.

THIRD DAY—THURSDAY, MAY 21, 1908.

MORNING SESSION—9:00 O'CLOCK.

20. Malpractice from the Doctor's Standpoint.....
.....Jno. Ashley, M. D., Bloomfield
21. The Interpretation and Treatment of Headache.....
.....W. A. Clark, M. D., Jefferson City
22. Angina Pectoris.....Franklin E. Murphy, M. D., Kansas City
23. The Examination of the Feces as a Routine Procedure.....
.....Jesse S. Myer, M. D., St. Louis
24. Therapeutics.....W. A. McKelvey, M. D., Minden Mines
25. The Physician's Relation to the Pharmacist, Practically Con-
sidered.....J. L. Ormsbee, M. D., Springfield
26. Prophylaxis of Insanity.....G. Wilse Robinson, M. D., Nevada
27. Diabetes Mellitus.....T. N. Bogart, M. D., Excelsior Springs
28. Echinacea Angustifolia.....J. W. Clark, M. D., Carterville
29. Acute Articular Rheumatism; Its Cause, Mode of Infection and
Treatment.....J. J. Ferrell, M. D., Owensville

THIRD DAY—THURSDAY, MAY 21, 1908.

AFTERNOON SESSION—1:30 O'CLOCK.

30. Therapeutics and Its Relation to the Practitioner.....
.....G. W. Whitely, M. D., Albany
31. Irrational Use of Drugs in the Treatment of Diseases.....
.....W. G. Cowan, M. D., Sedalia
32. Sanitation of Churches, Public Halls and Assembly Rooms....
.....A. H. Vandivert, M. D., Bethany
33. Endocarditis.....J. S. Triplett, M. D., Harrisonville
34. Clinical and Experimental Experience in the Dietary Treatment
of Hyperchlorhydria.....F. W. Froehling, M. D., Kansas City
35. Chronic Gastritis.....W. R. Beattie, M. D., Marshfield
36. Leukemia.....P. Donohoo, M. D., Joplin
37. Cerebro-Spinal Meningitis.....G. W. Goins, M. D., Breckinridge
38. Pneumonia.....Tinsley Brown, M. D., Hamilton
39. The Doctor in Politics; or, His Civic Responsibilities.....
.....E. G. Beers, M. D., Springfield
40. Filariasis Nocturna: Two Cases.....Jos. Grindon, M. D., St. Louis
41. Epilepsy, with Special Reference to Use of Thyroid Extract....
.....T. E. Graham, M. D., St. Louis
42. Care and Treatment of Rhinitis.....Noah Adams, M. D., Kansas City

43. Ethics.....C. W. Watts, M. D., Fayette
44. Treatment of Rheumatism.....Ira A. Marshall, M. D., Ironton
45. A Neurological Opinion in a Case of Supposed Traumatic Neurosis
.....W. W. Graves, M. D., St. Louis

SURGICAL SECTION

Y. M. C. A. Hall

SECOND DAY—WEDNESDAY, MAY 20, 1908.

MORNING SESSION—9:00 O'CLOCK.

1. The Removal of Bodies from the Respiratory Tract and Oesophagus by Bronchoscope; With Report of Cases.....
.....Hal Foster, M. D., Kansas City
2. Stricture of the Oesophagus...Chester E. Fulton, M. D., Springfield
3. Report of Case of Non-Malignant Stenosis of Pylorus of Two
Years' Duration—Posterior Gastro-Enterostomy—Death Due to
Reverse Peristalsis.....R. F. Amyx, M. D., St. Louis
4. Pyloric Spasms.....Frank Joseph Tainter, M. D., St. Charles
5. Cancer of the Rectum.....N. B. Carson, M. D., St. Louis
6. The Present Status of the Treatment of Cancer.....
.....N. F. Terry, M. D., Springfield
7. Carcinoma of the Female Breast.....
.....Jabez N. Jackson, M. D., Kansas City
8. Symposium on Gall Stone Diseases:
Pathology.....Willard Bartlett, M. D., St. Louis
Symptoms.....Roland Hill, M. D., St. Louis
Remote Consequences.....Jno. C. Morfit, St. Louis
Treatment.....C. M. Nicholson, M. D., St. Louis
9. Operations on the Gall Bladder.....T. E. Potter, M. D., St. Joseph
10. Gall Stone Disease.....Orville H. Dove, M. D., Kansas City

SECOND DAY—WEDNESDAY, MAY 20, 1908.

AFTERNOON SESSION—1:00 O'CLOCK.

11. Hypernephroma.....Jacob Geiger, M. D., St. Joseph
12. Differential Diagnosis Between Floating Kidney and Hydrops of
the Gall Bladder.....Frank G. Nifong, M. D., Columbia
13. Some Clinical, Pathologic and Surgical Phases of Stones in the
Kidneys.....A. H. Cordier, M. D., Kansas City
14. A Review of Three Hundred Ureter Catheterizations in their
Relation to Diagnosis and Treatment.....
.....Bransford Lewis, M. D., and C. E. Burford, M. D., St. Louis
15. Bladder Drainage.....C. F. Roberts, M. D., Kansas City
16. Rupture of Bladder.....H. C. Dalton, M. D., St. Louis
17. Cystocele.....Gordon A. Beedle, M. D., Kansas City
18. Appendicitis.....W. S. Shirk, M. D., Sedalia
19. Hematuria as a Complicating Factor in Appendicitis.....
.....M. G. Seelig, M. D., St. Louis

20. Typhoid Perforation.....Malvern B. Clopton, M. D., St. Louis
21. Pseudomyxoma Peritonei: Report of Case.....
.....O. B. Campbell, M. D., St. Joseph
22. Subserous Hernia of the Abdominal Wall.....
.....J. D. Griffith, M. D., Kansas City
23. A Brief Consideration of Post-Operative Gas Distention of the
Abdomen, With Suggestion for Prevention.....
.....Fritz J. Moennighoff, M. D., Kansas City
24. Remarks on Intestinal Anastomosis..Francis Reder, M. D., St. Louis

THIRD DAY—THURSDAY, MAY 21, 1908.

MORNING SESSION—9:00 O'CLOCK.

25. Importance of Early Surgical Interference in Tumors of the
Breast.....L. S. Wright, M. D., Lowry City
26. The Danger of Permitting Warts and Moles to Grow, Lest They
Become Malignant; With Report of Twenty-five Illustrative
Cases From the St. Louis Skin and Cancer Hospital.....
.....Edmund A. Babler, M. D., St. Louis
27. The Preparatory and After-Treatment of Surgical Cases.....
.....J. N. Barger, M. D., Darlington
28. How to Recognize Amongst Cases of Deafness Long Abandoned
as Hopeless those Susceptible of Radical Relief by Tympanic
Resection; With Notes from Practice.....
.....Robert Barclay, M. D., St. Louis
29. Surgery In a Country Practice.....W. H. Wiley, M. D., Ridgeway
30. Empyema.....Frank J. Lutz, M. D., St. Louis
31. Treatment of Fractures Adjacent to Joints; With Report of
Cases.....Wm. A. Shelton, M. D., Kansas City
32. Congenital Dislocation of the Hip.....
.....Nathaniel Allison, M. D., St. Louis
33. The Technic of Hysterectomy..Arthur E. Hertzler, M. D., Kansas City
34. Eversion of the Uterus, with Expulsion of a Large Fibromyoma.
.....Frank Hinchey, M. D., St. Louis
35. A Modification in the Technique of Abdominal Supra-Vaginal
Hysterectomy.....St. Elmo Sanders, M. D., Kansas City
36. Fibroids of the Uterus Complicated with Pregnancy.....
.....W. B. Dorsett, M. D., St. Louis
37. When Should Operation Be Performed in Ruptured Tubal Preg-
nancy?.....H. S. Crossen, M. D., St. Louis

THIRD DAY—THURSDAY, MAY 21, 1908.

AFTERNOON SESSION—1:00 O'CLOCK.

38. Treatment of Fractures of the Shaft of the Femur.....
.....W. B. Deffenbaugh, M. D., St. Joseph
39. What is the Significance of Gaseous Products When Found in
Contused and Lacerated Wounds?...W. B. Outten, M. D., St. Louis
40. Personal Experience in Gun-Shot Wounds..Jno. D. Seba, M. D., Bland
41. Tuberculous Lymph-Adenitis of the Mesenteric Lymph-Nodes...
.....Louis Rassieur, M. D., St. Louis
42. Personal Experience in the After-Treatment of Surgical Cases..
.....Willard Bartlett, M. D., St. Louis
43. Burn and Treatment.....T. J. Reiley, M. D., West Plains

44. Infections of the Knee Joint and Treatment.....
.....Walter C. G. Kirchner, M. D., St. Louis
45. Treatment of Tuberculous Fistula in Ano; With Report of Cases.
.....E. H. Thrailkill, M. D., Kansas City
46. Fissure in Ano.....W. H. Coffey, M. D., Kansas City
47. Stricture of the Sigmoid or Rectum.....J. D. Potts, M. D., St. Louis
48. The Operative Treatment of Hemorrhoids.....
.....W. H. Stauffer, M. D., St. Louis
49. Distinctive Features of Railroad Surgery that Peculiarize this
Class of Injuries.....J. W. Dreyfus, M. D., Louisiana

THIRD DAY—THURSDAY, MAY 21, 1908.

EVENING SESSION—8:00 O'CLOCK.

50. Nicholas Senn; His Life and Character.....
.....G. Wiley Broome, M. D., St. Louis
51. Artificial Anus at the Umbilicus Caused by Cancerous Suppura-
tion Originating at the Ovaries or Uterus.....
.....W. H. Gibbins, M. D., Clinton
52. Some Operations I Have Done Above the Shoulder Joint.....
.....Geo. Halley, M. D., Kansas City
53. Excision of the Lachrymal Sac as a Radical Cure for Chronic
Inflammatory Processes Thereof.....
.....Llewellyn Williamson, M. D., St. Louis
54. The General Management of Surgical Work in the Country.....
.....E. C. Grim, M. D., Kirksville
55. Modern Operations for the Radical Cure of Hernia.....
.....C C. Morris, M. D., St. Louis
56. Divulsion of the Scalp and Other Severe Scalp Injuries.....
.....Ernest F. Robinson, M. D., Kansas City
57. Fracture of the Neck of the Femur; Why It Occurs; Why a
Large Per Cent. of Cases are Diagnosed Too Late for Successful
Treatment; Treatment.....J. H. Tanquary, M. D., St. Louis
58. The Treatment of Diffuse Septic Peritonitis.....
.....W. S. Wiatt, M. D., East St. Louis
59. A Demonstration of Simple and Radical Mastoid Operations and
Method of Entering the Cranium Through Temporal Bone for
Intra-Cranial Complications of Middle Ear Suppurations.....
.....Alvah M. Wilson, M. D., St. Louis

CORRESPONDENCE

[By request of the Secretary of the St. Louis Medical Society we publish the following for the information of the members.—Ed.]

PROPOSED AMENDMENT TO THE BY-LAWS TO BE INTRODUCED IN THE HOUSE OF DELEGATES, MISSOURI STATE MEDICAL ASSOCIATION.

Let there be a new section to Chapter VIII of the By-Laws of the Missouri State Medical Association, to be known as Section 6, which may read as follows:

The Medico-Legal Committee shall consist of three members, who shall, upon request and in compliance with the conditions hereinafter named, aid in the defense of suits for alleged malpractice instituted or threatened against any member of the association. Conditions:

(a) Any member desiring to avail himself of the provisions of this section shall, so soon as possible, after any demand has been made upon him, present to the committee his request for aid in the defense together with a full and complete history of the case and the services therein rendered. The committee shall then, with the aid of its counsel, advise said member up to the time of the institution of suit without any expense to the member so charged. Should the member desire the committee's services subsequent to the institution of suit, he shall authorize the committee to further aid in the defense of said suit. The committee shall thereupon without expense to the member provide for all medical expert services necessary for the trial and the necessary legal services of its counsel; Provided, that the committee shall not obligate itself or the Association for the payment of any damages awarded in the trial or upon compromise.

(b) Such medico-legal aid or defense as is herein specified refers only to civil malpractice and is not to be construed to apply to criminal prosecutions.

(c) The committee with the approval of the House of Delegates shall have authority to employ counsel for the term of one year to advise as aforesaid and to represent any member of the Association in suits for alleged malpractice upon the terms hereinabove provided. The compensation of the attorney shall be determined by the Committee with the approval of the House of Delegates.

RESOLUTION TO BE INTRODUCED IN HOUSE OF DELEGATES, MISSOURI STATE MEDICAL ASSOCIATION.

Resolved that:

For the purpose of providing aid or defense to members charged with civil malpractice and to defray expenses necessary under Section 6, Chapter 8, there is hereby established a legal defense fund and there is immediately appropriated out of the Treasury of the Association the sum of \$1500 to be used for the purpose aforesaid, under the supervision of the Medico-Legal Committee.

The following letter was sent to each county society:

Legal defense in suits instituted or threatened for alleged malpractice is now furnished by a number of state and county societies. In 1907 it was adopted by the St. Louis Medical Society. Upon recommendation of the Society the delegates desire to urge the adoption of legal defense by the Missouri State Medical Association. Therefore we are asking each county society to coöperate with us in this movement by instructing their delegates to the State Association on this matter. We recommend such changes in the By-Laws of the State Association as will insure for the members all expenses of legal defense except the payment of judgment.

We send herewith a copy of the proposed amendments gotten up by the Medico-Legal Committee, with the assistance of the attorney of the St. Louis Medical Society. We also enclose a copy of the resolutions which our delegates propose to introduce at the next meeting to the State Association. This resolution sets aside \$1500 out of the treasury of the State Association to be put to the uses of legal defense by the appropriate committee. If adopted by the State Association, legal defense will serve as a very material advantage of membership, and will therefore prove attractive in increasing our membership. It will reduce the number of lapsing members to a minimum and it will practically do away with the habit that some physicians have of joining, dropping out and rejoining the Association. It will also promote the more prompt payment of dues. This plan of legal defense is now in successful operation in the New York, Pennsylvania, Maryland and Illinois State Medical Societies, and a number of other state societies have it under consideration.

The essential features for medical defense in vogue in these different organizations are identical in principle, although differing somewhat in detail. These features are: First, the establishment of a medical defense fund by the allotment thereto of a certain proportion of the annual dues; second, the creation of a medico-legal committee to investigate charges of alleged malpractice brought against any member; third, the employment of regular counsel to advise with the committee and the accused member; fourth, in the event of trial the employment of the official attorneys (or others at the discretion of the accused) to conduct the defense.

Mr. James Taylor Lewis, counsel for the Medical Society of the State of New York, has this to say in a letter to the Chairman of the Medico-Legal Committee of the St. Louis Medical Society:

"This State was the pioneer so far as America is concerned, although a similar defense has been conducted abroad. The defense was begun about six years ago and since this time have had to dispose of over 350 cases wherein malpractice was charged by a patient and during that time I have had the extreme good fortune to have lost but one action—a verdict for \$1900.00, which is now on appeal to the highest court of our State and will be heard during the present year.

"It is fair to say, therefore, that the plan is manifestly successful. It is to be understood, of course, that not in all cases has a summons and complaint been actually served upon the physician, for it has been my endeavor to avoid what at best would be unpleasant litigation to any physician, as no doctor cares to have his professional standing a matter of discussion in a court of law.

"There are two classes of these malpractice actions: One is the case where a doctor desires to sue for his bill for personal services and is met with a counter-claim charging a malpractice, and the other is the

charge or suit brought outright that the physician has been guilty of improper treatment or improper advice to his patient.

"The greatest cause for these suits appears to result from alleged improper repair of fractures, although every conceivable ailment has been the foundation for attack.

"Statistics have shown that about 97 per cent. of these claims are blackmail. The other 3 per cent. presenting questions which might fairly be said to be a proper subject for consideration for a court and jury. When the defense was begun statistics showed that about one physician in about 150 of the State of New York was annually sued for malpractice. The statistics for 1906 shows that about 1 physician in 350 has been sued and the first six months of 1907 shows a further reduction; all of which goes to demonstrate the moral effect upon the public of continuous and persistent and organized effort on behalf of the medical profession of this State.

"The expense necessarily incident to this preparation for trial and the actual costs of an appeal by the defendant, I feel should be met by the State Society, and now that the defense has been so satisfactorily established in our State I shall bring this matter up at the next State Society meeting in January at Albany and advise the payments of such necessary disbursements.

"To the payment of any judgment which might be recovered against a defendant physician, I am unalterably opposed. I am opposed to the insurance plan for the same reason, namely, that if shyster attorneys and their clients are to be assured that if they recover their verdict they are certain to get their money an incentive to press the litigation is provided and is bound to work hard. The public should be brought to know that the representative organization in any event will fight to the court of last resort any attempt to mulct the physician in any sum, no matter how small, and as the public and the lawyer come to be made aware that this fighting defense is to be made so much more quickly will this class of individuals begin to feel the change from timidity and fear to actual hostility on the part of the doctor."

This is an important matter and should be acted on only after thorough consideration, therefore instead of having the delegates of the St. Louis Medical Society introduce the plan at the next meeting of the State Association, without previous notice, we are asking each county society to take up the matter and consider it on its merits so that the delegates representing them or the State Association may be able to act in accordance with the wishes of their Society.

PRIZES TO BE AWARDED BY THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.

THE CENTRAL COMMITTEE OF THE INTERNATIONAL CONGRESS ON TUBERCULOSIS HAS ANNOUNCED THE OFFER OF THE FOLLOWING PRIZES.

I. A prize of \$1,000 is offered for the best evidence of effective work in the prevention or relief of tuberculosis by any voluntary Association since the last International Congress in 1905. In addition to the prize of \$1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award.

Evidence is to include all forms of printed matter, educational

leaflets, etc.; report showing increase of membership, organization, classes reached—such as labor unions, schools, churches, etc.; lectures given; influence in stimulating local Boards of Health, schools, dispensaries, hospitals for the care of tuberculosis; newspaper clippings of meetings held; methods of raising money; method of keeping accounts.

Each competitor must present a brief or report in printed form. No formal announcement of intention to compete is required.

II. A prize of \$1,000 is offered for the best exhibit of an existing sanatorium for the treatment of curable cases of tuberculosis among the working classes. In addition to the prize of \$1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award.

The exhibit must show in detail construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

III. A prize of \$1,000 is offered for the best exhibit of a furnished house, for a family or group of families of the working class, designed in the interest of the crusade against tuberculosis. In addition to the prize of \$1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award. This prize is designed to stimulate efforts towards securing a maximum of sun-light, ventilation, proper heating, and general sanitary arrangement for an inexpensive home. A model of house and furnishing is required. Each competitor must present a brief with drawings, specifications, estimates, etc., with an explanation of points of special excellence. Entry may be made under competitor's own name.

IV. A prize of \$1,000 is offered for the best exhibit of a dispensary or kindred institution for the treatment of the tuberculous poor. In addition to the prize of \$1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award.

The exhibit must show in detail construction, equipment, management and results obtained. Each competitor must present a brief or report in printed form.

V. A prize of \$1,000 is offered for the best exhibit of a hospital for the treatment of advanced pulmonary tuberculosis. In addition to the prize of \$1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award.

The exhibits must show in detail construction, equipment, management and results obtained. Each competitor must present a brief or report in printed form.

VI. The Hodgkins Fund Prize of \$1,500 is offered by the Smithsonian Institution for the best treatise that may be submitted on "The Relation of Atmospheric Air to Tuberculosis."

The detailed definition of this prize may be obtained from the Sec-

retary-General of the International Congress or Secretary of the Smithsonian Institution, Chas. D. Walcott.

VII. Prizes for Educational Leaflets:

A prize of \$100 is offered for the best educational leaflet submitted in each of the seven classes defined below. In addition to the prize of \$100, a gold medal and two silver medals will be awarded in each class. Each prize and medal will be accompanied by a diploma or certificate of award.

Competitors must be entered under assumed names.

- A. For adults generally (not to exceed 1,000 words).
- B. For teachers (not to exceed 2,000 words).
- C. For mothers (not to exceed 1,000 words).
- D. For in-door workers (not to exceed 1,000 words).
- E. For dairy farmers (not to exceed 1,000 words).
- F. For school children in grammar school grades (not to exceed 500 words).

In classes A, B, C, D, E, and F, brevity of statement without sacrifice of clearness will be of weight in awarding. All leaflets entered must be printed in the form they are designed to take.

- G. Pictorial booklet for school children in primary grades and for the nursery.

Class G. is designed to produce an artistic picture-book for children, extolling the value of fresh air, sun-light, cleanliness, etc., and showing contrasting conditions. "Slovenly Peter" has been suggested as a possible type. Entry may be made in the form of original designs without printing.

VIII. A gold medal and two silver medals are offered for the best exhibits sent in by any States of the United States, illustrating effective organization for the restriction of tuberculosis. Each medal will be accompanied by a diploma or certificate of award.

IX. A gold medal and two silver medals are offered for the best exhibits sent in by any State or Country (the United States excluded), illustrating effective organization for the restriction of tuberculosis. Each medal will be accompanied by a diploma or certificate of award.

X. A gold medal and two silver medals are offered for each of the following exhibits; each medal will be accompanied by a diploma or certificate of award; wherever possible each competitor is required to file a brief or printed report:

- A. For the best contribution to the pathological exhibit.
- B. For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any State of the United States. Brief required.
- C. For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any State or Country (the United States excluded). Brief required.

- D. For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any municipality in the world. Brief required.
- E. For the society engaged in the crusade against tuberculosis having the largest membership in relation to population. Brief required.
- F. For the plans which have been proven best for raising money for the crusade against tuberculosis. Brief required.
- G. For the best exhibit of a passenger railway car in the interest of the crusade against tuberculosis. Brief required.
- H. For the best plans for employment for arrested cases of tuberculosis. Brief required.

XI. Prizes of two gold medals and three silver medals will be awarded for the best exhibit of a work-shop or factory in the interest of the crusade against tuberculosis. These medals will be accompanied by diplomas or certificates of award.

The exhibit must show in detail construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

The following constitute the Committee on Prizes:

- DR. CHARLES J. HATFIELD, Philadelphia, *Chairman*.
- DR. THOMAS G. ASHTON, Philadelphia, *Secretary*.
- DR. EDWARD R. BALDWIN, Saranac Lake.
- DR. SHERMAN G. BONNEY, Denver.
- DR. JOHN L. DAWSON, Charleston, S. C.
- DR. H. B. FAVILL, Chicago.
- DR. JOHN B. HAWES, 2ND., Boston.
- DR. H. D. HOLTON, Brattleboro.
- DR. E. C. LEVY, Richmond, Virginia.
- DR. CHARLES L. MINOR, Asheville, N. C.
- DR. ESTES NICHOLS, Augusta, Me.
- DR. M. J. ROSENAU, Washington.
- DR. J. MADISON TAYLOR, Philadelphia.
- DR. WILLIAM S. THAYER, Baltimore.
- DR. LOUIS M. WARFIELD, St. Louis.

COUNTY SOCIETY NOTES

CHARITON COUNTY MEDICAL SOCIETY.

The Chariton County Medical Society enjoyed an interesting session at its meeting in Brunswick, April 9th. Dr. Wallace, second vice-president, occupied the chair and Drs. Edwards, Tatum, Kirkpatrick, Hawkins and McEuen were present and took part in the proceedings.

Dr. Edwards read a paper on "Tetanus" and reported a case following a gun-shot wound of the foot; the patient recovered.

Dr. McEuen read a paper on "Hysteria," which was well received.

Dr. Tatum presented the following clinic: Case I. A lady who, two weeks before, while rubbing clothes on a washboard, thrust a steel pin into the upper central part of the palm of the right hand. The pin was broken and part of it was supposed to have remained in the hand; it produced no symptoms until ten days later when there was slight pain and swelling of the wrist but no active inflammation. Dr. Edwards advised the use of a strong electro-magnet to locate and remove the pin. Dr. Hawkins advised the use of the x ray and operation. Case II. Girl, aged 16 years, in apparent good health, with history of several attacks coming on at irregular intervals in which she would toss about on the bed and refuse to speak or eat, continuing thus in one attack for four days. It was the opinion of the Society that this was a case of hysteria. Case III. Negro child three years of age had never walked; presented large prominent abdomen, enlargement of ankles and wrists, open fontanel and profuse perspiration on forehead. This was pronounced a case of rachitis. Case IV. Male twenty years old with conjunctivitis which seemed to be doing well under application of protargol solution.

Society adjourned to meet in Salisbury the second Thursday in May.—OLIVER McEUEEN, M. D., Acting Secretary.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF MARCH 28TH.

The committee on programs and scientific work reported a program for every meeting in the year and the same was adopted and ordered printed. It was decided to devote the 1st and 3rd Friday nights of each month to a postgraduate course of lectures and the committee was ordered to prepare and arrange same.

Dr. Terry read an interesting paper on "Opsonins." He said the general practitioner cannot hope to become very familiar with the theory of phagocytosis and the intricate technique of the pathologist, but we can appreciate the value of the conclusions.

The best definition of "opsonin" is that it is a substance present in the plasma of the blood which renders microbes susceptible of being taken up by the corpuscles; the destroying power of white blood corpuscles depends on the opsonin present; the opsonin index is a mathematical estimation of the fighting strength of the blood against infection.

Serum-therapy has given us some brilliant cures, but more failures, and while it is not all that could be desired it has placed the medical profession in a position of hopeful waiting with a profound respect for those who are laboriously endeavoring to solve the riddle of infectious diseases.

Dr. Rienhoff in discussing the paper said opsonins were, so to speak, "go-betweens."

MEETING OF APRIL 10TH.

Dr. Earle Thomas, of Springfield, and Dr. T. C. Miller, of Ash Grove, were elected to membership in the society.

President Coffelt reported that Dr. Porter, of St. Louis, was coming here to deliver a lecture on tuberculosis, and it was decided that the society should entertain Dr. Porter while here. Drs. Ralston, Patterson, Fortner, Boyd and Tefft were appointed a committee to take charge of this work and assist in the formation of a local Antituberculosis Society under the direction of Dr. Porter.

Dr. Smith read a very interesting paper on "Scarlatina." The history of this disease is obscure, although described as early as 1670. It is known in nearly all parts of the world but is uncommon and mild in our southern states. It is due to a specific cause, its severity is increased by a mixed infection, and it is contagious but as a rule is confined to one attack. Nephritis occurs in 15 to 20 per cent. of the cases, complications are most often caused by streptococci and may cause inflammation of any organ in the body; the sequelæ are sometimes severe.

Drs. Crane, Cox, Coffelt, Fortner, Camp, Parterson, Ruyle and Neer discussed the paper.—J. L. ORMSBEE, M. D., Secretary.

HARRISON COUNTY MEDICAL SOCIETY.

The Harrison County Medical Society held its regular quarterly meeting at Bethany, April 21st. A call had been issued for a meeting to be held January 21st, but there was no attendance as the doctors were all quite busy. This last meeting, however, made up for the loss of the other by the interest displayed, although the attendance was small. There were present Drs. Vandivert, Broyles, Guinn, Eades, Cavanaugh, Wiley and Morroway.

Dr. Eades read a paper on "Treatment Following Abortion." The paper was well prepared and full of interesting points for discussion. The author commended the sharp curette, although latitude enough was given wherein the cases and circumstances governed its use, and warned

against being an extremist. In the discussion Dr. Vandivert brought out the point that in these cases the cervix should be always patent; if it was not, it should be dilated sufficiently to allow of drainage.

Dr. Guinn presented a case of erysipelas involving the tissues surrounding the left eye, causing serious disturbances within the eye itself. This was a case in which the treatment was unanimously agreed upon.

Dr. Eades presented some specimens of tumors which, while resembling a cystic form, proved to be adenofibromas.

Dr. Wiley made some remarks in regard to "Pregnancy, Abortion and Race Suicide," which were well received.

Dr. Vandivert spoke of the success of using antistreptococcic serum in two cases of cerebrospinal meningitis; further observation is required and the doctor will be asked to prepare a paper on this subject.

Attention was called to the work of Dr. Simon Flexner and the report in the *Jour. of the A. M. A.* Of all meetings, these round table talks, this exchange of ideas at short range, have been particularly impressive.

A letter was read from the Bureau of Medical Legislation, showing the trend of thought and activity of the doctors all over the land, and particularly as to the engaging in politics. A resolution was then introduced by Dr. Vandivert that we pledge ourselves to support politically those who were favorable, not to "medical trustism," but to a fair and just arrangement of medical matters, not through selfish motives, but as right and justice demand. This was heartily agreed to.

Arrangements will be made for the next meeting, which it was decided should be a public meeting, in the park at Ridgeway, on the last Tuesday in June. A program will be prepared for this special meeting with the view of interesting the public. Upon completion of the program a copy will be forwarded for publication in the official organ of the Association to show what may be done and to serve as a stimulus to other societies.—JAMES H. MORROWAY, M. D., Secretary.

HOLT COUNTY MEDICAL SOCIETY.

The Holt County Medical Society met at Forest City April 2nd. Papers were read by Dr. J. M. Tracy and C. L. Evans. Dr. Tracy's paper was on "The Use of the Obstetrical Forceps," and the paper by Dr. Evans was entitled "For the Good of the Profession."

Action was taken on the resolution that we change our time of meeting from every three months to every two months and in future our regular meetings are to be held on the first Thursday in January, March, May, July, September and November.

The members in attendance were entertained at the hotel by the resident physicians, Drs. Chandler and Bullock.

The next meeting will be at Langdon on the first Thursday in June.—J. F. CHANDLER, M. D., Secretary.

PIKE COUNTY MEDICAL SOCIETY.

The Pike County Medical Society met in Bowling Green on April 6th, with the following members present: Drs. Pearson, Pollard, Doris, Walton, Smith, Dreyfus, Biggs, Guy, Hereford and District Councilor W. B. Dorsett of St. Louis.

Dr. Walters read a paper on "The Business Side of a Physician's Life." A spirited discussion of the paper ensued in which every member present participated. The consensus of opinion seemed to be that fees charged for medical services were too low in Pike county and that something ought to be done shortly to better this condition of affairs.

The next meeting will take place in Clarksville May 4th. The following program has been prepared: Puerperal Fever, by Dr. J. E. Bankhead; Abortion, by Dr. Hereford; Nephritis, by Dr. Guy; Anaemia, by Dr. Fred May; Cystitis, by Dr. Pearson; Grip, by Dr. Hetherlin; Dislocations, by Dr. Edgell.

Dr. J. W. Dreyfus, of Louisiana, was elected a delegate to the meeting of the State Association with Dr. M. O. Biggs, of Bowling Green, as alternate.

Drs. R. Shotwell and H. C. Gibbs, of Curryville, were proposed for membership.—R. GRAHAM HEREFORD, M. D., Secretary.

SCHUYLER COUNTY MEDICAL SOCIETY.

There was a meeting of Schuyler County Medical Society April 9th, in Lancaster. On account of the bad weather the attendance was small, so we adjourned to meet May 5th, when we will elect our new officers. Dr. J. B. Bridges, of Downing, was appointed delegate to attend State meeting and Dr. J. T. Jones, of Queen City, was appointed alternate.—H. E. GERWIG, M. D., Secretary.

SCOTT COUNTY MEDICAL SOCIETY.

The Scott County Medical Society met at Benton April 6th. Members present, Drs. T. F. Frazer, T. R. Frazer, G. S. Cannon, S. J. Wade, J. A. Cline, T. E. Tomlinson, P. S. Tate, W. S. Hutton.

Dr. T. F. Frazer reported a case of retained placenta following miscarriage, which was very interesting and called forth considerable discussion.

Report of committee on by-laws was deferred until the next meeting.

Dr. Mayfield, of Illmo, was elected a member.

The next meeting will be at Commerce on the first Monday in July.—W. S. HUTTON, M. D., Secretary.

SHELBY COUNTY MEDICAL SOCIETY.

The Shelby County Medical Society met in Shelby March 26th. Dr. White read an interesting paper on "Hysteria as a Disease," which

brought out a good discussion by all present. Cases were reported by Drs. Vaughn, Carson, Chapman and Owen.

Resolutions were passed asking Congressman Lloyd to use his influence toward granting pensions to the widows of Drs. Walter Reed and Jesse Lazear.

The election of officers resulted as follows: President, Henry M. Pollard, Shelby; vice-président, W. W. Owen, Shelby; secretary and treasurer, A. M. Wood, Lenton; censor, D. E. Singleton, Shelby; delegate, William Carson, Shelbyville.

Adjourned to meet in Shelbyville at call of the president.—A. M. Wood, M. D., Reporter.

STE. GENEVIEVE COUNTY MEDICAL SOCIETY.

The Ste. Genevieve County Medical Society held its regular monthly meeting April 8th. There were present Drs. Hinch, Rutledge, Wilkins and Lanning.

Dr. Wilkins read a paper on "The Necessary Knowledge of Anatomy and Physiology Required in Making a Physical Examination of the Heart," which was much appreciated by those present.

Dr. G. M. Rutledge was elected delegate to the Springfield convention.

The next meeting will be held on the second Wednesday in May at 7:30 p. m.—R. W. LANNING, M. D., Secretary.

ST. JOSEPH-BUCHANAN COUNTY MEDICAL SOCIETY.

REGULAR MEETING, FEBRUARY 12.

The secretary presented a report from the Antituberculosis Committee, stating that the public meeting held in the Y. M. C. A. auditorium in January was well attended, and the lecture by Dr. Porter very interesting.

Dr. Fred H. Ladd was unanimously elected to membership in the society.

Dr. J. K. P. Bowen presented a paper on the "Method of Examination of Eye Cases," which was discussed by Drs. Leonard, Fulkerson, Kenney, Renaud.

Dr. S. F. Carpenter reported two cases of hemorrhage of the stomach, with recovery, hot water treatment being employed.

Dr. P. I. Leonard called attention to some features of the proposed new city charter, in which the salary of the city physician is placed at \$1,500 per year, and asked the coöperation of the society. After considerable discussion, and some reference to the necessity of a new city hospital, a resolution was introduced by Dr. Wallace, asking that a committee be appointed to draft resolutions and present to the society at the next meeting. Adopted.

The chair appointed Drs. Jacob Geiger, Renaud and Ferguson.

Dr. Wallace offered a motion to bar the newspaper reporters from the sessions of the society, which was duly seconded. After some discussion both for and against the motion, Dr. Jacob Geiger offered an amendment to the effect that the reporter be admitted to the meeting, but that his reports be subject to the censorship of the secretary of the society. Carried.

Upon motion of Dr. French, "Osteomyelitis" was chosen as the subject for discussion at the next meeting, and the chair appointed Dr. Deffenbaugh to open same.

REGULAR MEETING, FEBRUARY 28.

The Committee on Resolutions presented its report, favoring a salary of \$2,000 per annum for the City Physician, who is to spend four hours per day in the office provided for him. He is to be a regular practitioner of medicine, with not less than three years' experience in the city. The committee also strongly recommended the building and equipping of a city hospital, commensurate with the demands of a city the size of St. Joseph.

A motion to adopt the resolution, and send copies to the city council, was duly seconded, and the subject opened for discussion.

Among those who spoke in favor of the resolution, especially in its bearing upon the building of a new city hospital, were Drs. Jacob Geiger, O. B. Campbell, C. R. Woodson, O. G. Gleaves, Fassett, McCoy, Elam, Ferguson and Kenney. Dr. Potter opposed the resolution, and said the expense of caring for the city's poor was greatly minimized by the present method. Dr. Holley presented a report for 1906, showing that the average expense for city patients was \$225 per month.

Upon vote, the resolution was unanimously adopted.

Upon motion of the secretary, committee on resolutions was retained as a committee on City Hospital, consisting of Dr. Jacob Geiger, J. W. Ferguson, E. C. Renaud.

The application of Dr. E. H. Bullock was read and referred to the Board of Censors.

Dr. Kenney introduced a resolution providing for a committee of five whose duty it shall be to investigate the various training schools for nurses in this city and report. Adopted.

The chair appointed Drs. Kenney, Ladd, M. S. Gray, O. B. Campbell, Elam.

Dr. Campbell presented a report of a case of pseudomyxoma peritonei.

REGULAR MEETING, MARCH 11.

In the absence of Dr. McCoy, the discussion on typhoid fever was opened by Dr. T. H. Doyle, who presented an outline of the etiology and symptomatology. He was followed by Dr. L. C. Bauman, with a paper on "Diagnosis and Treatment." The subject was discussed by Drs. Kenney, Campbell, Gray, Bowen, Todd, Toothaker, Charles Geiger, Carpenter.

Dr. W. T. Elam presented a case of nephrolithiasis with specimen, which was examined by the members.

REGULAR MEETING, MARCH 25.

"Smallpox" was the topic of the evening, and the discussion was opened by Dr. Toothaker, who presented a comprehensive paper on the etiology, symptomatology and modes of infection.

He was followed by Dr. E. S. Ballard, assistant city physician, who carefully outlined the diagnostic features of the disease, and brought out some salient points in differentiation. The doctor also called attention to the difficulties experienced in maintaining quarantine, expressing himself as strongly in favor of compulsory vaccination, if possible. He believes that if vaccination were made general in the large factories and packing-houses there would be an immense saving in the expense of quarantine, to say nothing of the saving of time on the part of employes who, not being vaccinated, contract the disease.

The discussion following was participated in by Drs. P. I. Leonard, Carpenter, Stamey, Potter, Elam, T. H. Doyle, Thomas, Walker, Ballard and Gray.

The subject of quarantine was then discussed, and Dr. Kenney offered a motion that the society go on record as being in favor of abolishing quarantine in smallpox. Seconded. The motion was lost.

Dr. Elam offered a motion in favor of compulsory vaccination, which was amended by Dr. Stamey to the effect that the society favors and strongly urges general vaccination in the schools, packing-houses and factories, and among all persons not immune. Seconded and carried.

Dr. Kenney moved to appoint a committee to draft a resolution in favor of abolishing quarantine in the state, to be presented to the State Society, the committee to report at next meeting. Amended by substituting the Committee on Public Health and Legislation. Seconded and carried.

Upon motion, the hour for opening the sessions of the society was changed from 8 to 8:30 p. m.

Osteomyelitis was chosen for discussion at the next meeting, to be opened by Dr. Deffenbaugh.—CHAS. WOOD FASSETT, M. D., Secretary.

ST. LOUIS MEDICAL SOCIETY.

MEETING OF APRIL 4TH.

The scientific program for the evening included the following papers: "The Present Status of Gastric Surgery," Dr. N. B. Carson; "Gastric Surgery from the Internist's Point of View," Dr. W. E. Fischel; "The Roentgen Ray in Gastric Diagnosis," Dr. H. W. Soper.

Drs. Carson and Fischel were not present. Dr. Soper's paper described, in an interesting manner, the progress made in the use of the x ray as a means of diagnosing gastric conditions. The extreme value of this method was made quite apparent by charts and drawings showing

the alterations from the normal view of the stomach when that organ is the seat of certain diseased conditions. The subject was discussed by a number of the members, all of whom expressed the opinion that the x ray was an instrument of the greatest value in diagnosis, when used by experienced persons under proper care and restrictions.

MEETING OF APRIL 18TH.

Dr. E. W. Saunders read a paper on "Serum Disease, as a Clinical Manifestation of Anaphylaxis" and Dr. R. L. Thompson discussed the "General Consideration of Serum Anaphylaxis." Dr. Thompson exhibited a number of rabbits to emphasize points in his paper.

Dr. Saunders recited the symptoms which follow in about thirty per cent. of persons who receive the first dose of horse serum. Even when no symptoms follow the primary injection the body is profoundly influenced and the condition of anaphylaxis, or supersensibility, appears. If a second injection is given the symptoms of serum disease appear immediately and usually with increased violence. Since this supersensibility may persist for many years the clinician should remember that horse serum should not be used carelessly or indiscriminately.

The phenomena of serum disease is not necessarily synchronous with anaphylaxis. A large dose of serum delays the appearance of anaphylaxis but does not prevent it. Clinically, it seems very probable that the general bacterial resistance is diminished during the stage of the serum disease. In view of the phenomena of anaphylaxis, injections of anti-toxin merely on suspicion should not be encouraged. Immunizing injections of the serum should not be employed when isolation will prevent the disease with a reasonable degree of certainty. The use of bactericidal sera of doubtful value should not be employed without careful consideration of the possible benefits and the bad effects of serum disease and anaphylaxis.

In the discussion Dr. Zahorsky called attention to the fact that Dr. Saunders recognized the phenomena of anaphylaxis two years before Bichat and Arrthus made their epoch-making experiments.

Official Roster

Missouri State Medical Association

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 Highsmith, Geo. R., Carrollton, Mo.
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 Hawkins, G. W., Triplett, Mo.
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 Jennings, C. A., Salisbury, Mo.
 Kirkpatrick, H. E., Dalton, Mo.
 Knott, Isaiah, Keytesville, Mo.
 Lewis, A. L., Sumner, Mo.
 McAdams, J. D., Prairie Hill, Mo.
 McEuen, Oliver, Salisbury, Mo.
 Tatum, Harry, Brunswick, Mo.
 Temple, C. H., Rockford, Mo.
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 Welch, J. F., Salisbury, Mo.
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 Farthing, R. R., Sparta, Mo.
 Nagle, P. E., Billings, Mo.
 Robertson, J. A., Ozark, Mo.
 Smith, W. L., Sparta, Mo.
 Young, J. C., Ozark, Mo.

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 Sisson, W. B., Kahoka, Mo.
 Teel, A. W., Kahoka, Mo.

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 Bowls, S. A., Linn, Mo.
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 Clark, W. A., Jefferson City, Mo.
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 Ettmueller, G., Jefferson City, Mo.
 Gove, Herman T., Linn, Mo.
 Hill, J. A., Jefferson City, Mo.
 Hough, C. P., Jefferson City, Mo.
 Leach, N. T., Elston, Mo.
 Martin, J. B., Russellville, Mo.

Norwood, W. W., Russellville, Mo.
Porth, J. P., Jefferson City, Mo.
Richoff, A. H., Chamois, Mo.
Son, E. R., Osage City, Mo.
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Thorpe, J. L., Jefferson City, Mo.

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Barnes, W. S., Pilot Grove, Mo.
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Evans, R. L., Boonville, Mo.
Fogel, R. L., Clifton City, Mo.
Lionberger, John R., Boonville, Mo.
Meredith, A. L., Woolridge, Mo.
Monroe, A. E., Otterville, Mo.
Nelson, A. W. B., Bunceton, Mo.
Parrish, J. S., Pleasant Green, Mo.
Pendleton, Thomas O., Pilot Grove, Mo.
Quigg, H. D., Blackwater, Mo.
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Teel, S. M., Prairie Home, Mo.
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Smith, M. A., Gallatin, Mo.
Thompson, O. N., Lock Spring, Mo.
Waller, C. E., Altamont, Mo.
Wetzel, N. M., Jameson, Mo.

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Guinn, J. C., Clarksdale, Mo.
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Lee, L. E., Weatherby, Mo.
Reynolds, E. M., Union Star, Mo.
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Saunders, L. E., Stewartville, Mo.
Stroup, E. R., Weatherby, Mo.
Yeater, H. P., Maysville, Mo.

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Duncan, E. A., Salem, Mo.
Gordon, J. B., Gila, Mo.
Lenox, W. M., Hobson, Mo.
McMurtrey, A. T., Salem, Mo.
Rudd, W. E., Salem, Mo.
Welch, J. C., Salem, Mo.

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Briegleb, Chas. F., St. Clair, Mo.
Dunnigan, J. P., Sullivan, Mo.
Eimbeck, A. F., New Haven, Mo.
Eimbeck, Wm. F., New Haven, Mo.
Fitzgerald, W. P., Gerald, Mo.
Hempker, W. H., Catawissa, Mo.
Hume, E. L., Bourbon, Mo.
Isbell, John, Washington, Mo.
Kitchell, W. E., St. Clair, Mo.
Lane, A., Sullivan, Mo.
Mankopf, B. E., New Haven, Mo.
May, H. A., Washington, Mo.
McNay, A. L., Pacific, Mo.
Poppenhusen, H. A. C., Washington, Mo.
Reaves, L. W., Japan, Mo.
Rusk, E. McD., Villa Ridge, Mo.
Rusk, John A., Gray's Summit, Mo.
Schudde, O. N., Sullivan, Mo.
Smith, August A., Pacific, Mo.
Snow, A. E., Union, Mo.
Williams, D. E., Lonedell, Mo.

GASCONADE-MARIES-OSAGE COUNTY.

Auf der Heide, Frederick, Drake, Mo.
Burgess, J. W., Belle, Mo.
Byler, W. F., Koeltztown, Mo.
Englebrecht, John, Stonyhill, Mo.
Ferrell, J. J., Owensville, Mo.
Ferrell, W. R., Bland, Mo.
Leach, C. J., Feuersville, Mo.
Neely, J. E., Vancleve, Mo.
Nieweg, J. W., Owensville, Mo.
Radmacher, J. J., Meta, Mo.
Seba, John D., Bland, Mo.
Seba, W. E., Leedy, Okla.
Spurgeon, Marion E., Red Bird, Mo.
Terrill, S. I., Meta, Mo.

GENTRY COUNTY.

Barger, J. U., Darlington, Mo.
Brooks, W. W., Stanberry, Mo.
Conrad, J. W., Albany, Mo.
Crocket, J. A., Stanberry, Mo.
Davis, Benj. Jr., Albany, Mo.
Forbis, C. F., Gara, Mo.
Landis, H. B., King City, Mo.
Lindley, E. R., Stanberry, Mo.
Long, H. L., Berlin, Mo.
Martin, W. T., Albany, Mo.
Smith, Geo. W., Albany, Mo.
Whiteley, G. W., Albany, Mo.

GREENE COUNTY.

Armstrong, A., 305 S. Campbell St.,
Springfield, Mo.
Barnes, G. W., 200 W. Commercial St.,
Springfield, Mo.
Bartlett, J. R., 540 E. Commercial St.,
Springfield, Mo.
Beers, E. G., Springfield, Mo.
Boyd, J. R., Springfield, Mo.
Carter, O. N., Brookline Station, Mo.
Camp, W. A., Springfield, Mo.
Clark, J. W., Bois D'Arc, Mo.
Coffelt, T. A., Springfield, Mo.
Cowen, H. K., Ash Grove, Mo.
Cox, Lee, 223 South St., Springfield,
Mo.
Crane, T. V. B., Springfield, Mo.
Dewey, J. E., Springfield, Mo.
Doolin, T., Ash Grove, Mo.
Elkins, E. Bryant, Springfield, Mo.
Evans, E. C., Koshkonong, Mo.
Evans, E. L., Springfield, Mo.
Farnsworth, D. B., Springfield, Mo.
Fortner, B. F., Springfield, Mo.
Fulbright, J. H., Springfield, Mo.
Fulton, C. E., Springfield, Mo.
Hill, H. S., Springfield, Mo.
James, W. C., 445 E. Commercial St.,
Springfield, Mo.
Kern, U. F., Springfield, Mo.
Knab, E., Springfield, Mo.
McClure, L. E., Walnut Grove, Mo.
Matthews, J. C., Springfield, Mo.
Mayfield, M. H., Springfield, Mo.
Miller, T. C., Ash Grove, Mo.
Moore, C. A., Springfield, Mo.
Neer, C. S., Springfield, Mo.
Nixon, J. H., Springfield, Mo.
Oldham, J. D., Springfield, Mo.
Ormsbee, J. L., Springfield, Mo.
Patterson, W. P., Springfield, Mo.
Peak, O. L., Springfield, Mo.
Perry, J. K., Walnut Grove, Mo.
Pipkin, R. L., Springfield, Mo.
Pursselley, W. L., Springfield, Mo.
Ralston, J. P., Springfield, Mo.
Rienhoff, Wm., Springfield, Mo.
Ross, F. E., Springfield, Mo.
Ruyler, H. J., Springfield, Mo.
Sayers, J. S., Springfield, Mo.
Sherman, D. U., Springfield, Mo.
Smith, W. M., Springfield, Mo.
Tefft, J. E., 103½ E. Square, Spring-
field, Mo.
Terry, N. F., Springfield, Mo.
Thomas, Earl, Springfield, Mo.
Tickle, S. W., Springfield, Mo.

Williams, J. W., Springfield, Mo.
 Williams, N. C., 318½ College St.,
 Springfield, Mo.
 Willier, A. F., 1437 Summit Ave.,
 Springfield, Mo.
 Woody, C. E., Springfield, Mo.
 Wright, J. P., Springfield, Mo.

GRUNDY COUNTY.

Asher, J. A., Trenton, Mo.
 Coon, D. W., Trenton, Mo.
 Fulkerson, W. D., Trenton, Mo.
 Sheldon, S., Trenton, Mo.
 Winingham, W. H., Trenton, Mo.
 Wright, J. B., Trenton, Mo.

HARRISON COUNTY.

Broyles, F. H., Bethany, Mo.
 Bryson, E. H., Bethany, Mo.
 Dunkerson, E. B., Hatfield, Mo.
 Eades, M. H., New Hampton, Mo.
 Gwinn, G. E., Bethany, Mo.
 Mitchell, C. A., Blythedale, Mo.
 Morroway, J. H., Ridgeway, Mo.
 Robertson, C. H., Eagleville, Mo.
 Stewart, B. S., Bethany, Mo.
 Sutton, B. N., Happy Valley, Mo.
 Swint, William, Gilman City, Mo.
 Vandivert, A. H., Bethany, Mo.
 Wiley, W. H., Ridgeway, Mo.
 Williams, A. W., Ridgeway, Mo.

HENRY COUNTY.

Barr, Bernice B., Clinton, Mo.
 Beaty, Joseph G., Huntingdale, Mo.
 Benway, Wm. H., Deepwater, Mo.
 Berry, Geo. W., Montrose, Mo.
 Blackmore, Thomas A., Windsor, Mo.
 Bradley, Will P., Windsor, Mo.
 Britts, John H., Clinton, Mo.
 Bronaugh, J. H., Calhoun, Mo.
 Derwent, A. E., Clinton, Mo.
 Douglass, F. M., Clinton, Mo.
 Fewell, R. B., Montrose, Mo.
 Gibbins, Wm. H., Clinton, Mo.
 Gray, A. A., Calhoun, Mo.
 Griffith, C. E., Windsor, Mo.
 Haire, Robt. D., Clinton, Mo.
 Hampton, J. R., R. F. D. 1, Clinton, Mo.
 Head, C. W., Windsor, Mo.
 Howard, Corwin F., Deepwater, Mo.
 Kunkler, J. E., Clinton, Mo.
 McNeese, A. Jackson, Clinton, Mo.
 Meneese, G. W., Clinton, Mo.
 Miller, J. M., Montrose, Mo.
 Peelor, Edwin C., Coal, Mo.
 Poague, S. A., Clinton, Mo.
 Russell, J. J., Deepwater, Mo.
 Shankland, Wm. M., Clinton, Mo.
 Smith, L. L., Ulrich, Mo.
 Streibey, U. G., Brownington, Mo.
 Taylor, C. D., Brownington, Mo.
 Walker, G. S., Calhoun, Mo.
 Wallis, J. R., Clinton, Mo.
 Wilson, J. S., Deepwater, Mo.
 Woltzen, S. W., Ulrich, Mo.

HOLT COUNTY.

Bullock, F. E., Forest City, Mo.
 Chandler, J. F., Forest City, Mo.
 Davis, J. M., Craig, Mo.
 Davis, T. O., Maitland, Mo.
 Evans, C. L., Oregon, Mo.
 Hogan, F. E., Bigelow, Mo.
 Kaltenbach, E., Craig, Mo.
 Miller, E. E., Craig, Mo.
 Miller, E. M., Mound City, Mo.
 Miller, R. R., Maitland, Mo.
 Proud, W. C., Oregon, Mo.
 Quigley, B. T., Mound City, Mo.
 Simmons, B. B., Oregon, Mo.
 Tracy, J. C., Mound City, Mo.
 Tracy, J. M., Mound City, Mo.
 Williams, Ira, Maitland, Mo.
 Wood, W. S., Oregon, Mo.

HOWARD COUNTY.

Bonham, Vaughn Q., New Franklin, Mo.
 Burgwin, A. B., Fayette, Mo.
 Champion, J. R., Hillsdale, Mo.
 Fleet, J. B., New Franklin, Mo.
 Gallemore, G. B., Boonsboro, Mo.
 Givens, H. K., Fayette, Mo.
 Hume, J. Y., Armstrong, Mo.
 Lee, C. H., Fayette, Mo.
 Lewis, C. O., Fayette, Mo.
 Long, O. M., Harrisburg, Mo.
 Megee, C. P., Fayette, Mo.
 Richards, T. C., Fayette, Mo.
 Smith, N. E., Fayette, Mo.
 Thompson, W. S., Armstrong, Mo.
 Watts, C. W., Fayette, Mo.
 Wright, U. S., Fayette, Mo.
 White, M. S., Roanoke, Mo.
 Wood, J. T., Harrisburg, Mo.

HOWELL COUNTY.

Bingham, J. W., Pottersville, Mo.
 Black, James M., Southfork, Mo.
 Culp, J. C., Thayer, Mo.
 Davis, J. C. B., Willow Springs, Mo.
 Dixon, J. C. B., West Plains, Mo.
 Johnson, J. McB., West Plains, Mo.
 Mitchell, E. H., Pottersville, Mo.
 Nichols, D. J., West Plains, Mo.
 Powell, D. T., Thayer, Mo.
 Reiley, J. F., West Plains, Mo.
 Rowe, H. J., Willow Springs, Mo.
 Spears, R. S., West Plains, Mo.
 Shuttee, H. C., West Plains, Mo.
 Thompson, H. A., Lanton, Mo.
 Thornburg, A. H., West Plains, Mo.

IRON COUNTY.

Adams, J. Q., Belleview, Mo.
 Farrar, G. W., Ironton, Mo.
 Gay, R. T., Ironton, Mo.
 Kerlagon, C. C., Belleview, Mo.
 Marshall, I. A., Ironton, Mo.
 Martin, James, Pilot Knob, Mo.

JACKSON COUNTY.

(All addresses Kansas City, Mo., unless
 otherwise stated.)

Adams, Noah, 407 Argyle Bldg.
 Agin, Burroughs, 2317 College Ave.
 Allbritain, J. W., 24th & Holly St.
 Anderson, H. C., 716 Shukert Bldg.
 Andrews, Vernon Lee, 3745 Wabash
 Ave.
 Armour, W. A., 3401 E. 12th St.
 Atkins, Calvin, Independence, Mo.
 Ayers, Samuel, 1208 Wyandotte.
 Ball, H. P., 203 Rialto Bldg.
 Balsley, J. A., Santa Monica, Calif.
 Beattie, T. J., 505 Shukert Bldg.
 Beedle, Gordon A., 312 Altman Bldg.
 Beil, J. W., 311 Argyle Bldg.
 Bellows, Geo. E., 429 Rialto Bldg.
 Belove, Benj., 500 Shukert Bldg.
 Berry, Geo., 501 Rialto Bldg.
 Binnie, J. F., 302 Argyle Bldg.
 Block, Jacob, 419 Argyle Bldg.
 Blair, E. G., 404 Bryant Bldg.
 Blakesley, T. S., 100 Rialto Bldg.
 Boswell, A. C., 2301 Summit St.
 Bowman, Dora E., 327 Rialto Bldg.
 Brainart, B. F., Martin City, Mo.
 Brewster, R. B., 423 Argyle Bldg.
 Brown, C. A., 418 Keith & Perry Bldg.
 Brown, Ralph, 1304 E. 12th St.
 Bruhl, Julius, 436 N. Ridge Bldg.
 Brunig, F. H., 310 Altman Bldg.
 Burke, C. L., 304 Deardorff Bldg.
 Burnett, S. Grover, 3100 Euclid Ave.
 Burrill, C. W., 623 Shukert Bldg.
 Callahan, Richard, 540 Cambridge Ave.
 Campbell, Wm. L., 15th & Jackson.
 Cantrell, C. D., 12th & Troost.
 Capell, Clarence S., 1107 McGee St.

Carbaugh, Eugene, 430 Rialto Bldg.
 Carl, S. T., 350 N. Ridge Bldg.
 Carter, J. W., 2407 Jackson Ave.
 Carver, H. N., 2805 E. 12th St.
 Castelow, R. E., 13th & Woodworth.
 Cathcart, C. P., 419 Deardorff Bldg.
 Chambers, J. Q., Shukert Bldg.
 Chambliss, E. L., 523 Rialto Bldg.
 Child, Scott P., 603 Bryant Bldg.
 Clausen, J. J., 424 Deardorff Bldg.
 Clayton, Paul B., General Hospital.
 Coffey, W. H., 224 Bryant Bldg.
 Coffin, G. O., 436 N. Ridge Bldg.
 Coleman, H. B., 3105 E. 18th St.
 Conover, C. C., 405 Argyle Bldg.
 Cordier, A. H., 310 Rialto Bldg.
 Crooks, O. R., 334 Rialto Bldg.
 Cross, R. O., 317 Rialto Bldg.
 Cross, W. M., 3600 Troost Ave.
 Crowder, W. H., 304 Altman Bldg.
 Crowell, H. C., 429 Rialto Bldg.
 Cunningham, O. J., 306 Altman Bldg.
 Curdy, R. J., 301 Keith & Perry Bldg.
 Curry, E. R., 304 Deardorff Bldg.
 Dailey, Forrest W., 415 Argyle Bldg.
 Dannaker, C. A., 637 Woodland Ave.
 Darling, B. C., Argyle Bldg.
 Davis, A. W., 3303 Woodland Ave.
 Davis, E. T., 2634 Myrtle.
 Davis, G. W., 12th & Central.
 Davis, S. J. T., 304 Deardorff Bldg.
 Dod, F. L., 4646 Troost Ave.
 Donaldson, G. H., 3956 Wyandotte.
 Donaldson, J. E., 3940 Broadway.
 Dove, O. H., 413 Rialto Bldg.
 Drake, N. A., 1001 Harrison St.
 Dunham, S. A., 1214 Main St.
 Eldridge, J. S., 318 E. 10th St.
 Eubank, A. E., 3021 S. W. Blvd.
 Evans, F. H., Indp. & Forest Aves.
 Faires, C. P., 1300 E. 8th St.
 Field, Thomas, 2706 E. 18th St.
 Florian, Albert J., 920 Holmes St.
 Foster, Hal, 402 Altman Bldg.
 Fowleston, John, 405 Argyle Bldg.
 Frankenberger, J. M., University Hosp.
 Freyman, A. A., 1201 Independence Ave.
 Freyman, Jokshan, 1201 Independence Ave.
 Froehling, F. W., 920 Holmes St.
 Frick, Wm., 409 Rialto Bldg.
 Frick, W. J., 415 Keith & Perry Bldg.
 Frye, A. G., 2342 Jackson Ave.
 Fryer, B. E., 520 E. 9th St.
 Fulton, A. L., 429 Deardorff Bldg.
 Fulton, C. M., 210 Argyle Bldg.
 Gaines, J. W., 406 Rialto Bldg.
 Gayle, V. W., 204 Deardorff Bldg.
 Gilmer, Wm. L., 533 Arlington St.,
 Mt. Washington, Mo.
 Exner, Max J., 610 Wyandotte St.
 Gist, Wm., 311 Argyle Bldg.
 Goldman, Max, 319 Century Bldg.
 Gosney, C. W., 720 Shukert Bldg.
 Green, J. W., Independence, Mo.
 Greenlee, A. R., 3510 E. 10th St.
 Griffith, A. C., 522 Rialto Bldg.
 Griffith, J. D., 522 Rialto Bldg.
 Guffey, Don Carlos, 605 Bryant Bldg.
 Hall, C. Lester, 523 Bryant Bldg.
 Hall, D. Walton, 525 Bryant Bldg.
 Hall, Frank J., 422 Argyle Bldg.
 Hall, J. R., 306 Altman Bldg.
 Halley, Geo. W., 3540 Campbell St.
 Hamel, Geo. F., 706 W. 10th St.
 Hamilton, H. D., 31st & Woodland Ave.
 Hanawalt, H. O., 1214 Main St.
 Hanna, M. A., 100 Rialto Bldg.
 Hardin, C. B., 413 Rialto Bldg.
 Harrelson, N. O., Suite 100 Rialto Bldg.
 Harrington, J. L., 434 Rialto Bldg.
 Harrison, Addison M., Lee's Summit,
 Harrison E. Lee, 36th & Kenwood,
 Mo.
 Hays, H. C., 307 Rialto Bldg.
 Heitzman, Chas. W., 329 Argyle Bldg.
 Henderson, J. P., 425 Argyle Bldg.
 Henry, Francis J., 2203 Brooklyn.
 Herbst, Frank, 9th & Charlotte St.
 Hertzler, A. E., 402 Argyle Bldg.
 Hetherington, E. M., 725 Bryant Bldg.
 Hickerson, J. C., Independence.
 Hill, Howard, 424 Argyle Bldg.
 Hoffman, O., Jr., 407 Argyle Bldg.

Holbrook, R. W., 415 Argyle Bldg.
 Hollis, Luther T., 535 N. Ridge Bldg.
 Horrigan, J. A., 31st & Main St.
 Howard, John W., 805 McGee St.
 Hoxie, G. H., 317 Argyle Bldg.
 Hull, A. G., 3610 McGee St.
 Hunt, J. E., 317 Argyle Bldg.
 Hyde, B. C., 404 Bryant Bldg.
 Irwin, Chas. B., 310 Rialto Bldg.
 Iuen, F. J., 1334 Grand Ave.
 Iuen, W. C., 1334 Grand Ave.
 Jackson, C. A., 425 Argyle Bldg.
 Jackson, Jabes N., 425 Argyle Bldg.
 Jacobs, Benj., 415 Argyle Bldg.
 James, S. C., 420 Shukert Bldg.
 Jennett, H. N., 4603 W. 9th St.
 Jerowitz, H. D., 1233 Grand Ave.
 Johnson, Chas. R., 231 Rialto Bldg.
 Johnstone, P. A., 500 Shukert Bldg.
 Jones, K. P., 1028 Walnut St.
 Kanoky, J. P., 912 Walnut St.
 Kelly, E. H., 2018 Prospect Ave.
 Kepner, Joseph W., 15th & Olive St.
 Kimberlin, J. W., 632 Altman Bldg.
 King, Geo. A., 415 Argyle Bldg.
 King, W. E., 512 Keith & Perry Bldg.
 Kistler, J. R., 601 S. W. Blvd.
 Klein, W. C., Brunswick Hotel.
 Knox, A. C., 724 Bryant Bldg.
 Krimminger, C. E., Independence Mo.
 Kruger, Geo. G., Lone Jack, Mo.
 Kuhn, H. P., Keith & Perry Bldg.
 Kuhn, W. F., State Hospital, St. Joseph, Mo.
 Kyger, J. W., 815 E. 31st st.
 Lahmer, Ira B., Walsenburg, Colo.
 Lake, N. E., 1330 Summit St.
 Lane, H. H., N. E. Cor. S. W. Blvd. &
 Jefferson.
 Laning, J. H., 623 Shukert Bldg.
 Lapp, J. G., 203 Askew.
 Laurenzana, D. A., 522 E. 5th St.
 Laurenzana, L., 522 E. 5th St.
 Lee, R. H., S. E. Cor. 33rd & Penn.
 Leonard, H. O., 420 Shukert Bldg.
 Leonard, H. Ward, 605 S. W. Blvd.
 Lester, Chas. H., 501 Bryant Bldg.
 Leverich, Leslie, 716 Central St.
 Lewis, J. K., 2810 E. 10th St.
 Lewis, N. O., N. W. Cor. 4th & Grand.
 Lewis, Nannie P., 1219 Wyandotte St.
 Lichtenberg, J. S., Argyle Bldg.
 Lieberman, B. A., Argyle Bldg.
 Logan, J. E., 1203 Wyandotte.
 Look, H. H., 428 Altman Bldg.
 Lowe, Frederick M., 415 Argyle Bldg.
 Lowtey, W. J., 402 Hall Bldg.
 Luscher, L. W., 205 E. 12th St.
 Lyle, Halsey M., 311 Argyle Bldg.
 Lynch, J. C., 14th & Grand Ave.
 McAlester, A. W., Jr., 703 Bryant Bldg.
 McArthur, A. W., 512 Shukert Bldg.
 McBride, W. L., 503 Bryant Bldg.
 McCall, H. B., 1424 Holmes St.
 McCrea, Maggie, 535 N. Ridge Bldg.
 McDonald, Chett, 527 Rialto Bldg.
 McDonald, Park, 527 Rialto Bldg.
 McKee, Joseph W., 329 Rialto Bldg.
 McKillip, O. L., 532 Altman Bldg.
 McQuade, H. D., 210 Rialto Bldg.
 McVey, Newton, 324 Rialto Bldg.
 Mallett, E. P., 302 Argyle Bldg.
 Manko, Emanuel, 227 W. 12th St.
 Mann, A. W., Oak Grove, Mo.
 Mark, E. G., 319 Argyle Bldg.
 Martin, H. L., 601 E. 12th St.
 Martin, J. C., 3026 E. 23rd St.
 Mathias, Edward L., 210 Rialto Bldg.
 Merriman, C. S., 2511 Forest Ave.
 Middleton, James, 412 N. Mt. St. Gall.
 Miller, Abram, 531 Rialto Bldg.
 Miller, Hugh, 705 Shukert Bldg.
 Mitchell, John T., 510 N. Ridge Bldg.
 Moennighoff, Fritz, 513 Rialto Bldg.
 Montgomery, W. E., 428 Rialto Bldg.
 Morris, W. C., 315 Garfield Ave.
 Morrow, C. J., 504 Bryant Bldg.
 Morrow, W. F., 400 Altman Bldg.
 Mosher, Geo. C., 605 Bryant Bldg.
 Mott, J. S., 517 Rialto Bldg.
 Murphy, F. E., 405 Deardorff Bldg.
 Neff, F. C., 532 Altman Bldg.
 Newhouse, Stanley, 452 N. Ridge Bldg.
 Nixon, J. W., 517 Shukert Bldg.
 Norberg, Geo. B., 311 Argyle Bldg.

O'Connor, C., Cor. 13th & Campbell.
 O'Donnell, Alfred, 415 Argyle Bldg.
 Overall, T. W., 422 Rialto Bldg.
 Owens, M. J., Cor. S. W. Blvd. & Jefferson.
 Parker, O. H., Cor. 12th & Central.
 Pearce, H. E., 324 Rialto Bldg.
 Perkins, J. W., Altman Bldg.
 Pettijohn, N. J., 3416 Holmes St.
 Phillips, E. T., 1019 Broadway.
 Pinckard, C. G., 903 E. 8th St.
 Pipkin, Geo. F., 706 Cleveland.
 Pittam, J. T., 1106 Broadway.
 Porter, Allen L., 100 Rialto Bldg.
 Porter, D. R., 430 W. 10th St.
 Pugsley, Fred N., 333 Argyle Bldg.
 Puntun, John, 532 Altman Bldg.
 Ragan, Stephen H., 31st & Holmes.
 Ragdale, T. J., Lee's Summit, Mo.
 Raiston, J. H., 1800 W. 39th St.
 Randolph, A. G., 3303 Woodland Ave.
 Rathbone, F. W., 3303 Woodland Ave.
 Reed, Wm. M., 422 Rialto Bldg.
 Reyling, F. T., 1004 Oak St.
 Reynolds, W. T., 324 Shukert Bldg.
 Rice, Wm., 402 Hall Bldg.
 Richardson, Katherine B., 21 Clinton Pl.
 Rieger, Earl C., 1105 W. 24th St.
 Ritter, C. A., 702 Bryant Bldg.
 Roberson, H. M., 706 W. 10th St.
 Roberts, C. F., 720 Shukert Bldg.
 Roberts, C. S., Lee's Summit.
 Roberts, J. L., 224 Argyle Bldg.
 Robertson, J. A., 705 Shukert Bldg.
 Robinson, Ernest, 603 Bryant Bldg.
 Robinson, J. L., 400 Altman Bldg.
 Rogers, Ford B., Argyle Bldg.
 Rogers, J. C., 403 Rialto Bldg.
 Rosenwald, Leon, 409 Argyle Bldg.
 St. Clair, R. L., 5200 St. John Ave.
 Sams, Wm. M., 1422 Independence Ave.
 Sanders, F. L., 518 Shukert Bldg.
 Sanders, St. Elmo, 419 Shukert Bldg.
 Sandzen, Carl, Rialto Bldg.
 Sawyer, J. F., 317 Rialto Bldg.
 Sawyer, Thos. T., 4303 E. 15th St.
 Schaeffler, E. W., 317 Argyle Bldg.
 Schaeffler, R. M., 317 Argyle Bldg.
 Scott, J. N., 214 N. Ridge Bldg.
 Schutz, W. H., 712 Bryant Bldg.
 Sheldon, J. G., 405 Altman Bldg.
 Shelton, W. A., 405 Argyle Bldg.
 Shelley, O. C., Independence, Mo.
 Sherer, J. W., 418 Argyle Bldg.
 Shumate, D. L., 517 Shukert Bldg.
 Singleton, J. M., 1105 E. 15th St.
 Skinner, Edward H., 212 Rialto Bldg.
 Sloan, R. T., 407 Rialto Bldg.
 Smith, J. Herbert, 426 Rialto Bldg.
 Smith, R. M., 203 E. 12th St.
 Songer, H. E., 3224 Oak St.
 Stephens, Nannie, 817 E. 31st St.
 Stevens, Wm. W., 513 Rialto Bldg.
 Stewart, E. L., 520 Shukert Bldg.
 Stofor, S. R., 3618 Independence Ave.
 Streett, St. Clair, 302 Argyle Bldg.
 Strother, J. S., 415 Keith & Perry Bldg.
 Sutton, Richard L., 276 Ridge Bldg.
 Swaney, A. G., Lee's Summit, Mo.
 Swaney, Loren, Hickman Mills, Mo.
 Switzer, Clyde, 12th & Troost.
 Talbot, Ambrose, 203 Rialto Bldg.
 Taylor, L. G., 429 Deardorff Bldg.
 Tesson, N. A. G., 405 Argyle Bldg.
 Thomas, A. W., Frisco Hospital, Springfield, Mo.
 Thompson, J. H., 402 Deardorff Bldg.
 Thompson, James, 207 Rialto Bldg.
 Thornton, Thos. R., Lee's Summit, Mo.
 Thrailkill, E. H., 307 Rialto Bldg.
 Tieman, T. G., 608 S. W. Blvd.
 Tiffany, Flavel B., 805 McGee St.
 Trimble, W. K., 3444 Prospect.
 Trueman, H. G., 600 Bryant Bldg.
 Twyman, T. G., Independence, Mo.
 Van Eman, Fred, 415 Argyle Bldg.
 Voegelin, Samuel, 436 N. Ridge Bldg.
 Von Quast, E., 310 Century Bldg.
 Wedding, E. A., 2122 E. 15th St.
 Weiss, F. H., 416 Deardorff Bldg.
 Welch, A. J., 434 Rialto Bldg.
 Wever, J. S., 501 Bryant Bldg.
 Wheeler, B. H., 422 Deardorff Bldg.
 Wheeler, W. S., 205 E. 12th St.

Wherrit, H. P., Independence, Mo.
 Willits, W. C., 311 Argyle Bldg.
 Wilson, A. M., 906 Main St.
 Wilson, C. E., 415 Keith & Perry Bldg.
 Wilson, Dora Green, 420 Rialto Bldg.
 Wilson, John, 720 Shukert Bldg.
 Wolf, I. J., 408 Argyle Bldg.
 Wood, D. L., 4 E. 10th St.
 Wood, N. P., Independence, Mo.
 Wooley, Paul V., 309 Argyle Bldg.
 Wyatt, T. E., 3216 Olive St.
 Young, O. O.
 Zwart, B. H., 1019 Prospect Ave.

JASPER COUNTY.

Anderson, F. L., Joplin, Mo.
 Barnett, A. F., Joplin, Mo.
 Blackwell, Z. T., Joplin, Mo.
 Bragdon, G. H., Reeds, Mo.
 Carpenter, A. L., Carl Junction, Mo.
 Chenoweth, L. C., Webb City, Mo.
 Clark, A. B., Joplin, Mo.
 Clark, J. W., Cartersville, Mo.
 Cummings, C. C., Joplin, Mo.
 Donohoo, Phillip, Joplin, Mo.
 Freeman, A. B., Joplin, Mo.
 Grantham, S. A., Joplin, Mo.
 Haas, H. R., Joplin, Mo.
 Hall, Elizabeth, Carthage, Mo.
 Harutun, M. B., Joplin, Mo.
 Henry, B. M., Alba, Mo.
 James, R. M., Joplin, Mo.
 Kelso, R. S., Joplin, Mo.
 Ketcham, C. M., Carthage, Mo.
 Kincheloe, M. E., Joplin, Mo.
 Lanyon, Wm. H., Joplin, Mo.
 Mallory, W. H., Joplin, Mo.
 Matthews, L. I., Joplin, Mo.
 Mays, G. I., Joplin, Mo.
 McClure, G. W., Cartersville, Mo.
 McMichael, A. O., Joplin, Mo.
 Miller, G. W., Joplin, Mo.
 Miller, S. H., Joplin, Mo.
 Neff, R. L., Joplin, Mo.
 Pifer, J. D., Joplin, Mo.
 Post, W. B., Carthage, Mo.
 Powers, Everett, Carthage, Mo.
 Powers, H. C., Chitwood, Mo.
 Sanz, George, Webb City, Mo.
 Shelton, M. C., Joplin, Mo.
 Snyder, A. R., Joplin, Mo.
 Spriggs, M. L., Joplin, Mo.
 Steele, W. E., Carthage, Mo.
 Taulbee, J. B., Joplin, Mo.
 Taylor, H. H., Joplin, Mo.
 Winchester, J. M., Joplin, Mo.
 Wolfe, B. F., Joplin, Mo.

JEFFERSON COUNTY.

Bryan, G. G., De Soto, Mo.
 Donnell, R. E., De Soto, Mo.
 Farrar, W. H., De Soto, Mo.
 Gibson, W. E., De Soto, Mo.
 Hamel, A. H., De Soto, Mo.
 Harris, C. G., Festus, Mo.
 Hensley, O. E., Pevely, Mo.
 Long, F. L., Farmington, Mo.
 McNutt, I. N., Pevely, Mo.

JOHNSON COUNTY.

Aber, W. H., Montserrat, Mo.
 Adcock, D. C., Warrensburg, Mo.
 Adcock, J. A. B., Warrensburg, Mo.
 Anderson, J. I., Warrensburg, Mo.
 Anderson, John T., Cornelia, Mo.
 Bozarth, John R., Centerville, Mo.
 Bradley, T. L., Warrensburg, Mo.
 Case, Z., Warrensburg, Mo.
 Gilbert, E. A., Warrensburg, Mo.
 Graves, E. A., Kingsville, Mo.
 Hall, O. B., Warrensburg, Mo.
 Johnson, W. E., Warrensburg, Mo.
 Martin, W. L., Chilohowee, Mo.
 Murray, L. F., Holden, Mo.
 Ozias, C. O., Warrensburg, Mo.
 Pare, E. Y., Leeton, Mo.
 Park, Henry, Sweet Springs, Mo.
 Parker, H. F., Warrensburg, Mo.

Porter, J. E., Knobnoster, Mo.
Rice, John M., Columbus, Mo.
Robinson, L. H., Warrensburg, Mo.
Schofield, L. J., Warrensburg, Mo.
Schooley, R. C., Robins, Mo.
Shy, D. E., Knobnoster, Mo.
Shy, M. P., Knobnoster, Mo.
Simpson, J. T., Holden, Mo.
Taylor, W. E., Owsley, Mo.
Thompson, W. G., Holden, Mo.

LACLEDE COUNTY.

Anderson, J. N., Conway, Mo.
Atchley, John, Lebanon, Mo.
Avery, D. I., Lebanon, Mo.
Billings, J. M., Lebanon, Mo.
Casey, T. H., Lebanon, Mo.
Clark, W. J., Conway, Mo.
Crawford, J. R., Lebanon, Mo.
Herbert, T. B., Lebanon, Mo.
Lindsey, J. W., Orla, Mo.
Lockwood, W. A., Conway, Mo.
McComb, James, Lebanon, Mo.
Perkins, J. M., Lebanon, Mo.
Pinckard, J. A., Lebanon, Mo.
Prichett, P. L., Lebanon, Mo.
Reser, J. H. H., Conway, Mo.
Standard, D. E., 512½ Commercial St., Springfield, Mo.
Tinsley, J. H., Orla, Mo.
Ware, T. V., Lebanon, Mo.

LAFAYETTE COUNTY.

Braecklein, W. A., Higginsville, Mo.
Carter, R. C., Higginsville, Mo.
Carthrae, Lewis, Corder, Mo.
Carthrae, Lewis, Jr., Corder, Mo.
Chalkley, A. J., Corder, Mo.
Cope, J. Q., Lexington, Mo.
Fischer, J. G. W., Alma, Mo.
Fredendall, G. W., Lexington, Mo.
Fulkerson, J. J., Lexington, Mo.
Gaines, E. F., Bates City, Mo.
Harwood, W. G., Dover, Mo.
Liëser, F. D., Concordia, Mo.
Lissack, H. M., Lexington, Mo.
McLennan, T. A., Higginsville, Mo.
Mann, F. W., Wellington, Mo.
Mann, J. A., Wellington, Mo.
Oetting, O. G., Concordia, Mo.
Ott, C. W., Higginsville, Mo.
Payne, B. T., Lexington, Mo.
Payne, N. B., Lexington, Mo.
Perrie, John, Mayview, Mo.
Roberts, M. G., Lexington, Mo.
Ryland, C. T., Lexington, Mo.
Schneider, J. A., Concordia, Mo.
Schreiman, F., Concordia, Mo.
Watts, R. D., Napoleon, Mo.
Webb, W. C., Higginsville, Mo.

LAWRENCE-STONE.

Andrews, J. P., Marionville, Mo.
Brown, O. H., Mt. Vernon, Mo.
Burney, W. S., Miller, Mo.
Clark, S. M., Hallitown, Mo.
Craven, J. H., Marionville, Mo.
Doggett, C. R., Marionville, Mo.
Flemming, J. B., Aurora, Mo.
Goodrich, R. E., Crane, Mo.
Gum, L. J., Lawrenceburg, Mo.
Hardin, D. E., Aurora, Mo.
Harris, J. A., Mt. Vernon, Mo.
Henson, L., Galena, Mo.
Hoffman, D. M., Crane, Mo.
Holmes, W. M., Marionville, Mo.
King, C. R., Crane, Mo.
Loveland, W. S., Verona, Mo.
Madry, A. H., Aurora, Mo.
Miller, Thomas, Aurora, Mo.
Rice, Marion, Stotts City, Mo.
Rodman, W. W., Pierce City, Mo.
Roseberry, E. C., Mt. Vernon, Mo.
Shelton, C. W., Mt. Vernon, Mo.
Smart, R. W., Marionville, Mo.
Stevenson, F. S., Aurora, Mo.
Wade, E. E., School, Mo.
Wade, J. H., Ponce de Leon, Mo.

LEWIS COUNTY.

Brown, J. C., Lewistown, Mo.
Cole, Paul F., Steffenville, Mo.
Dunlop, H. E., Canton, Mo.
Ellery, Wm., LaGrange, Mo.
Ellery, Wm. L., LaGrange, Mo.
Frame, C. N., Ewing, Mo.
Knight, G. F., Benjamin, Mo.
McCutchan, G. L., Canton, Mo.
McGlasson, T. F., Lewistown, Mo.
McKlim, H. W., LaBelle, Mo.
Owens, N. O., LaGrange, Mo.
Schofield, R. B., Lewistown, Mo.
Shanks, C. O., Canton, Mo.
Simpson, W. B., LaBelle, Mo.
Wilson, R. E., LaBelle, Mo.
Young, J. A., LaGrange, Mo.

LINCOLN COUNTY.

Diggs, Joseph, Hawk Point, Mo.
Duwelius, L. H., Briscoe, Mo.
Knox, James A., Whitesides, Mo.
Moore, W. L., Truxton, Mo.
Pendleton, L., Troy, Mo.
Prewitt, Geo. E., Hawk Point, Mo.
Smith, W. P., Troy, Mo.
Strickland, J. R., Moscow Mills, Mo.
Taylor, A. M., Elsberry, Mo.

LINN COUNTY.

Buck, U. G., Rothville, Mo.
Burke, F. W., Laclede, Mo.
Burke, J. L., Laclede, Mo.
Cockran, F. B., Brookfield, Mo.
Dryden, U. C., Purdin, Mo.
Ellis, W. W., Marceline, Mo.
Eure, J. B., Brookfield, Mo.
Fore, T. P., Brookfield, Mo.
Frazier, Leland, Marceline, Mo.
Haley, Robert, Brookfield, Mo.
Howard, D. F., Brookfield, Mo.
Jenkins, C. E., Brookfield, Mo.
Johnson, H. C., Meadville, Mo.
Lane, J. W., Linneus, Mo.
Morris, R. H., Linneus, Mo.
Musgrove, W. H., Eversonville, Mo.
Oven, T. P., Brookfield, Mo.
Patrick, P. L., New Boston, Mo.
Polson, J. T., Laclede, Mo.
Putman, B. B., Marceline, Mo.
Putman, Ola, Marceline, Mo.
Ridings, O. H., Meadville, Mo.
Scott, W. B., Bucklin, Mo.
Shepherd, J. D., Meadville, Mo.
Standly, E. D., Linneus, Mo.
Standly, Z. T., Laclede, Mo.
Standly, K. V., Brookfield, Mo.
Stratton, C. D., Rothville, Mo.
Thompson, J. M., Meadville, Mo.
Whaley, R. W., Browning, Mo.

LIVINGSTON COUNTY.

Alexander, G. W., Chula, Mo.
Barney, R., Chillicothe, Mo.
Batdorff, F. P., Farmersville, Mo.
Chaffin, R. E., Belton, Mo.
Gibson, H. C., Mooresville, Mo.
Girdner, W. M., Chillicothe, Mo.
Gordon, David, Chillicothe, Mo.
Grace, H. M., Chillicothe, Mo.
Piatt, K. S., Chillicothe, Mo.
Minor, James C., Chillicothe, Mo.
Shelton, J. C., Chillicothe, Mo.
Simpson, A. J., Chillicothe, Mo.
Simpson, W. R., Chillicothe, Mo.
Stevens, B. N., Chillicothe, Mo.
Swope, W. A., Wheeling, Mo.
Trimble, J. W., Wheeling, Mo.
White, W. L., Springhill, Mo.
Yates, D. D., Dawn, Mo.

MADISON COUNTY.

Anthony, C. A., Fredericktown, Mo.
Barron, W. H., Mine La Motte, Mo.
Carr, G. M., Marquand, Mo.
Davis, C. U., Fredericktown, Mo.

Dines, G. L., Mine La Motte, Mo.
 Gale, F. W., Marquand, Mo.
 Greenwood, G. H., Fredericktown, Mo.
 Haley, O., Fredericktown, Mo.
 Newberry, F. R., Fredericktown, Mo.
 Nifong, Wm., Fredericktown, Mo.
 Slaughter, S. C., Fredericktown, Mo.
 Smith, J. K., Fredericktown, Mo.

MARION COUNTY.

Banks, H. L., Hannibal, Mo.
 Baskett, J. N., Hannibal, Mo.
 Blue, A. B., Hannibal, Mo.
 Bounds, E. H., Hannibal, Mo.
 Bourn, J. J., Hannibal, Mo.
 Bush, F. W., Hannibal, Mo.
 Chilton, J. C., Hannibal, Mo.
 Chowning, Thomas, Hannibal, Mo.
 Detweiler, A. J., Hannibal, Mo.
 Dudley, C. R., Hannibal, Mo.
 Farrell, J. J., Hannibal, Mo.
 Glahn, C. P., Palmyra, Mo.
 Goodier, R. H., Hannibal, Mo.
 Guss, W. C., Hannibal, Mo.
 Hays, W. H., Hannibal, Mo.
 Hill, I. E., Hannibal, Mo.
 Hornback, E. T., Hannibal, Mo.
 Howell, J. S., Hannibal, Mo.
 Paxon, C. E., Hannibal, Mo.
 Primm, J. N., Hannibal, Mo.
 Roselle, T. A., Palmyra, Mo.
 Schmidt, R., Hannibal, Mo.
 Shanks, A. L., Hannibal, Mo.
 Smith, S. G., Hannibal, Mo.
 Smith, U. S., Hannibal, Mo.
 Vandiver, C. E., Hannibal, Mo.
 Waldo, E. E., Hannibal, Mo.

MERCER COUNTY.

Bristow, G. M., Princeton, Mo.
 Buren, C. R., Princeton, Mo.
 Chesmore, H. P., Princeton, Mo.
 Wally, H., Coansville, Mo.
 Oyler, H. W., Millgrove, Mo.
 Perry, J. M., Princeton, Mo.
 Pickett, C. P., Mercer, Mo.
 Powell, B. S., Princeton, Mo.

MILLER COUNTY.

Allee, W. L., Eldon, Mo.
 Allee, W. S., Olean, Mo.
 Bennage, J. L., Iberia, Mo.
 Brockman, H. H., Eldon, Mo.
 De Vilbiss, E. F., Eugene, Mo.
 Dixon, W. D., Tuscumbia, Mo.
 Gilleland, J. L., Olean, Mo.
 Kouns, D. H., Tuscumbia, Mo.
 Leslie, Walter H., Spring Garden, Mo.
 Temple, J. W., Eldon, Mo.
 VonGramp, W. A., Iberia, Mo.
 Walker, G. D., Eldon, Mo.

MISSISSIPPI COUNTY.

Chapman, A. W., Charleston, Mo.
 Finley, F. L., Anniston, Mo.
 Hamner, M. D., Bertrand, Mo.
 Lynch, J. W., Charleston, Mo.
 Martin, A. J., East Prairie, Mo.
 Martin, S. P., East Prairie, Mo.
 Miller, E. F., Verdella, Mo.
 Ogilvie, R. K., Charleston, Mo.
 Reid, H. L., Charleston, Mo.

MONITEAU COUNTY.

Allee, E. M., Speed, Mo.
 Bramel, H. W., McGirk, Mo.
 Burke, J. P., California, Mo.
 Crum, J. A., Marion, Mo.
 Dearing, W. A., Jamestown, Mo.
 Freudenberger, H., Clarksburg, Mo.
 Gray, L. M., California, Mo.
 Klueber, H. C., California, Mo.
 Lang, J. H., Centertown, Mo.
 Latham, H. W., Latham, Mo.
 Latham, L. L., Latham, Mo.
 Marsh, J. W., Tipton, Mo.

Norman, J. B., California, Mo.
 Patterson, W. R., Tipton, Mo.
 Popejoy, H. R., High Point, Mo.
 Redmon, S. H., Tipton, Mo.
 Robertson, J. M., Bunceton, Mo.
 Stewart, J. B., Clarksburg, Mo.
 Thorpe, A. V., Jamestown, Mo.
 Wilson, G. S., Fortuna, Mo.

MONROE COUNTY.

Baker, Chas., Santa Fe, Mo.
 Bell, W. T., Stoutville, Mo.
 Brown, J. E., Florida, Mo.
 Dixon, C. H., Holliday, Mo.
 Duncan, Edward, Long Branch, Mo.
 Hull, J. R., Monroe City, Mo.
 Lloyd, T. B., Paris, Mo.
 McGee, Dan, Paris, Mo.
 McMurry, M. C., Paris, Mo.
 McNutt, W. B. A., Monroe City, Mo.
 Moss, F. M., Paris, Mo.
 Payne, H. G., Paris, Mo.
 Ragsdale, G. M., Paris, Mo.
 Shobe, H. G., Paris, Mo.

MORGAN COUNTY.

Bay, Harry, Florence, Mo.
 Beale, J. T., Versailles, Mo.
 Fry, C. E., Syracuse, Mo.
 Gunn, A. J., Versailles, Mo.
 Lutman, H. N., Versailles, Mo.
 Short, J. S., Versailles, Mo.
 Well, Wm., Versailles, Mo.
 Woods, P. G., Versailles, Mo.

NEWTON COUNTY.

Benton, A. W., Neosho, Mo.
 Bowers, Horace, Neosho, Mo.
 Bridges, J. M., Tipton Ford, Mo.
 Brown, W. D., Newtonia, Mo.
 Campbell, W. M., Seneca, Mo.
 Chapman, U. S., Diamond, Mo.
 Doty, E. G., Anderson, Mo.
 Foster, H. F., Neosho, Mo.
 Hancock, J. B., Newtonia, Mo.
 Hodges, J. J., Granby, Mo.
 Lamson, J. W., Neosho, Mo.
 Lamson, R. C., Neosho, Mo.
 Langley, J. W., Granby, Mo.
 Maas, A., Neosho, Mo.
 Porter, H. L., Seneca, Mo.
 Roseberry, E. M., Neosho, Mo.
 Weems, D. L., Neosho, Mo.
 Wills, R. L., Neosho, Mo.

NODAWAY COUNTY.

Allen, A. B., Maryville, Mo.
 Anthony, F. R., Maryville, Mo.
 Barnett, A. D., Guilford, Mo.
 Crowson, E. L., Pickering, Mo.
 Cummings, K. C., Maryville, Mo.
 Day, Hiram, Parnell, Mo.
 Dean, C. E., Burlington Junction, Mo.
 Dean, J. W., Maryville, Mo.
 Dean, L. E., Maryville, Mo.
 Frank, C. E., Maryville, Mo.
 Goodson, H. C., Hopkins, Mo.
 Hereford, W. B., Pickering, Mo.
 Howell, C. F., Bedison, Mo.
 Johns, Gomer, Wilcox, Mo.
 Kirk, C. W., Hopkins, Mo.
 Koch, C. D., Maryville, Mo.
 Larrabee, J. A., Barnard, Mo.
 McClanahan, J. M., Guilford, Mo.
 Nash, G. A., Maryville, Mo.
 Pierpoint, J. E., Skidmore, Mo.
 Pollard, M. M., Barnard, Mo.
 Sargent, D. A., Hopkins, Mo.
 Saylor, H. L., 215 Citizens Bank, Des Moines, Ia.
 Smith, D. G., Arkoe, Mo.
 Todd, J. H., Maryville, Mo.
 Wallis, F. C., Maryville, Mo.
 Wallis, Wm. M. Jr., Maryville, Mo.
 Wallis, W. M. Sr., Maryville, Mo.

PETTIS COUNTY.

(All Addresses Sedalia, Mo., unless otherwise stated.)

Abbers, E. A., Smithton, Mo.
Alderman, M. C., Porter Bldg.
Bishop, W. T., Hughesville, Mo.
Bohling, C., 5th & Ohio.
Bronson, I. T., 2nd & Ohio.
Campbell, A. J., 3rd & Ohio.
Cartwright, C. C., R. F. D. No. 1, Sedalia, Mo.
Clabaugh, O. W., Greenridge, Mo.
Cole, H. B., Porter Bldg.
Collins, M. T., 219 Ilgenfritz Bldg.
Cowan, W. G., 504 S. Ohio.
Dunlap, W. O., 108 W. Main St.
Dyer, D. P., Dresden, Mo.
Evans, W. H., Beaman, Mo.
Ferguson, Leslie, Greenridge, Mo.
Ferguson, W. J., 321 S. Ohio.
Halton, O. H., 504 S. Ohio.
Harris, W. B., Georgetown, Mo.
Heaton, A. H., 109 W. 7th St.
Hite, H. A., Greenridge, Mo.
Hubbard, J. D., Versailles, Mo.
Kelly, S. G., Ilgenfritz Bldg.
Knott, Minerva, Solano, New Mexico.
Love, J. G., State Hospital, Nevada, Mo.
McNeil, C. A., M. K. & T. Hospital.
McNeil, G. E., M. K. & T. Hospital.
Mitchell, J. E., R. F. D. No. 1, Hughesville, Mo.
Morley, Frank R., 1103A E. 5th St.
Nasse, Edmund, 2nd & Ohio.
Overstreet, W. C., 312 S. Ohio.
Prowell, J. D., Longwood, Mo.
Sands, M. L., Cole Camp, Mo.
Shirk, W. S., Porter Bldg.
Simonds, Wallace, Cassidy Bldg.
Sutton, F. L., 504 S. Ohio.
Titworth, Guy, 1103A E. 5th St.
Trader, C. S., 5th & Ohio.
Tucker, A. J., 3rd & Ohio.
Walker, W. E., Lamonte, Mo.
Wood, E. A., Maywood Hospital.
Yancey, E. F., M. K. & T. Hospital.

PHELPS COUNTY.

Baysinger, S. L., Rolla, Mo.
Breuer, W. H., St. James, Mo.
Breuer, R. E., Newburg, Mo.
Burns, W. F., Newburg, Mo.
Cowan, R. B., Edgar Springs, Mo.
Fulbright, C. H., St. James, Mo.
Johnson, R. L., Rolla, Mo.
Livingston, A. A., Elk Prairie, Mo.
Love, J. G., State Hospital, Nevada, Mo.
Matlock, L. J., St. James, Mo.
Orrick, G. W., Rolla, Mo.
Reed, H. L., Beulah, Mo.
Rowe, S. B., Rolla, Mo.
Short, Martha, Rolla, Mo.
Smith, B. T., Newburg, Mo.
Smith, W. S., Rolla, Mo.

PLATTE COUNTY.

Chastain, C. H., Weston, Mo.
Clark, H. M., Platte City, Mo.
Coffey, G. C., Platte City, Mo.
Cowan, Lee, Iatan, Mo.
Dinwiddie, F. G., Camden Point, Mo.
Gardener, P. L., Waldron, Mo.
Hale, J. M., Dearborn, Mo.
Herndon, A. S., Camden Point, Mo.
Hull, E. R., Camden Point, Mo.
Mizener, J. L., Edgerton, Mo.
Naylor, Alva, Platte City, Mo.
Patterson, H. H., Edgerton, Mo.
Redman, Spencer, Platte City, Mo.
Shafer, F. M., Edgerton, Mo.
Shafer, L. A., Edgerton, Mo.
Shultz, J. W., Weston, Mo.
Swaney, W. D., Linkville, Mo.
Underwood, J., Parkville, Mo.
Winter, J. H., Parkville, Mo.
Yokum, G. D., Parkville, Mo.

POLK COUNTY.

Brown, C. H., Fair Play, Mo.
Cousins, S. W., Morrisville, Mo.
Drake, W. D., Bolivar, Mo.
Hopkins, W. S., Bolivar, Mo.
Hunt, L. L., Fair Play, Mo.
Loafman, J. E., Bolivar, Mo.
Mitchell, A. F., Bolivar, Mo.
Paris, R. W., Morrisville, Mo.
Roberts, J. F., Bolivar, Mo.

PULASKI COUNTY.

Carter, W. C., Dixon, Mo.
Murphy, H. C., Richland, Mo.
Oliver, E. A., Richland, Mo.
Ragan, W. L., Richland, Mo.
Rolens, L. E., Dixon, Mo.
Rolens, M. F., Dixon, Mo.
Sell, W. J., Waynesville, Mo.
Stebbins, N. I., Crocker, Mo.
Tice, L., Waynesville, Mo.

PUTNAM COUNTY.

Carryer, C. H., Unionville, Mo.
Cozad, F. A., Powerville, Mo.
Geisinger, E. J., Unionville, Mo.
Haynes, Lee, Mendota, Mo.
Montgomery, E. A., Unionville, Mo.
Noel, I. F., Unionville, Mo.
Rice, F. D., Lucerne, Mo.
Townsend, J. A., Unionville.

RALLS COUNTY.

Birney, W. L., Oakwood, Mo.
Downing, T. J., New London, Mo.
Graves, C. H., Center, Mo.
Harwood, W. S., Rensselaer, Mo.
Hendrix, W. G., New London, Mo.
McCullon, R. W., Center, Mo.
Monroe, Thomas, Center, Mo.
Walter, Fred, Perry, Mo.
Waters, W. T., New London, Mo.
Winn, M., Iasco, Mo.
Wix, F. M., Center, Mo.

RANDOLPH COUNTY.

Barnhart, D. A., Huntsville, Mo.
Bragg, G. G., Huntsville, Mo.
Clapp, C. B., Moberly, Mo.
Cuppaidge, G. O., Moberly, Mo.
Dickerson, W., Renick, Mo.
Dinwiddie, T. H., Higbee, Mo.
Dutton, C. K., Moberly, Mo.
Hickerson, E. R., Moberly, Mo.
Johnson, G. A., Moberly, Mo.
Lowery, John A., Clifton Hill, Mo.
Mangus, C. W., Moberly, Mo.
Mangus, T. D., Moberly, Mo.
Mitchell, R. A., Clark, Mo.
Terrill, W. R., Clifton Hill, Mo.

RAY COUNTY.

Ball, J. E., Richmond, Mo.
Clark, J. F., Rayville, Mo.
Cook, T. B., Rayville, Mo.
Ellis, L. E., Orrick, Mo.
Estill, W. G., Lawson, Mo.
Etherton, W. C., Camden, Mo.
Greene, L. D., Richmond, Mo.
Grimes, Marvin, Hardin, Mo.
Hamilton, R. L., Richmond, Mo.
Higdon, E. F., Richmond, Mo.
Joiner, G. W., Rayville, Mo.
Major, H. S., Hardin, Mo.
McGaughey, E. T., Richmond, Mo.
Rentfro, E. W., Rayville, Mo.
Roney, J. H., Lawson, Mo.
Sevier, Robert, Richmond, Mo.
Sheetz, Robert, Orrick, Mo.
Shotwell, C. B., Richmond, Mo.
Smith, Geo. W., Henrietta, Mo.
Smith, James W., Richmond, Mo.
Stapp, J. H., Hardin, Mo.
Todd, Geo. O., Lawson, Mo.

RIPLEY COUNTY.

Bennie, W. D., Naylor, Mo.
 Posey, J. J., Naylor, Mo.
 Proctor, S. A., Doniphan, Mo.
 Redwine, J. T., Doniphan, Mo.

SALINE COUNTY.

Gore, A. E., Marshall, Mo.
 Gore, D. C., Marshall, Mo.
 Hall, J. R., Marshall, Mo.
 Harris, J. E., Marshall, Mo.
 Harrison, Wm., Marshall, Mo.
 Howard, J. H., Slater, Mo.
 Jarvis, W. M., Slater, Mo.
 Manning, D. T., Marshall, Mo.
 McGuire, M. S., Arrow Rock, Mo.
 Richart, G. A., Blackburn, Mo.
 Ringen, R. H., Sweet Springs, Mo.
 Shuck, L. J., Nelson, Mo.
 Spoots, B. M., Marshall, Mo.
 Walker, E. N., Grand Pass, Mo.
 Whittington, W. L., 415 Albemoral St.,
 St. Joseph, Mo.

ST. CHARLES COUNTY.

Baltzer, H. F. W., Cottleville, Mo.
 Bitter, Carl, St. Charles, Mo.
 Corley, H. N., St. Paul, Mo.
 Dunn, F. St. Peters, Mo.
 Glosemeyer, L. H., O'Fallon, Mo.
 Gossow, A. A., St. Charles, Mo.
 Hardin, T. L., St. Charles, Mo.
 Jackson, T. J., St. Charles, Mo.
 Martin, J., Hamburg, Mo.
 Morgner, Omar, St. Charles, Mo.
 Mudd, J. R., St. Charles, Mo.
 Sandfos, Frank, Portage Des Sioux,
 Mo.
 Stumberg, B. K., St. Charles, Mo.
 Tainter, F. J., St. Charles, Mo.
 Wentker, B. P., St. Charles, Mo.
 Wiegers, T. L., Flint Hill, Mo.

ST. CLAIR COUNTY.

Bell, W. E., Osceola, Mo.
 Cline, C. W., Appleton City, Mo.
 Landaker, C. L., Collins, Mo.
 Mason, W. J., Weaubleau, Mo.
 SeEVERS, Ruth, Osceola, Mo.
 Smith, R. J., Johnson City, Mo.
 Stratton, L. S., Roscoe, Mo.
 Williams, D. B., Osceola, Mo.

ST. FRANCOIS COUNTY.

Applebery, R., Leadwood, Mo.
 English, J. H., Farmington, Mo.
 Evans, A. L., Bonne Terre, Mo.
 Haney, T. L., Flat River, Mo.
 Keith, F. L., Flat River, Mo.
 McKenzie, D. H., Leadwood, Mo.
 Marshall, Albert, Bonne Terre, Mo.
 Poston, C. P., Bonne Terre, Mo.
 Robinson, B. I., Farmington, Mo.
 Stammer, F. W., Bismark, Mo.
 Williams, G. B., Flat River, Mo.
 Woods, S. Elliott, Bonne Terre, Mo.

STE. GENEVIEVE COUNTY.

Ford, Edward, River aux Vases, Mo.
 Hertich, C. J., Ste. Genevieve, Mo.
 Hinch, F. E., Ste. Genevieve, Mo.
 Jarvis, N. W., Bloomsdale, Mo.
 Lanning, R. W., Ste. Genevieve, Mo.
 Moore, C., St. Marys, Mo.
 Morganstein, H. J., Weingarten, Mo.
 Rutledge, G. M., Ste. Genevieve, Mo.
 Shirley, J. M., St. Marys, Mo.
 Wilkins, J. A., St. Marys, Mo.

ST. LOUIS COUNTY.

Armstrong, C. L., Webster Groves, Mo.
 Armstrong, J. H., Kirkwood, Mo.
 Baker, Marshall, Webster Groves, Mo.
 Brossard, P. M., Maplewood, Mo.
 Carter, Howard, Webster Groves, Mo.

Cape, L. W., Maplewood, Mo.
 Coleman, H. T., Pattonville, Mo.
 Dalton, M., Fenton, Mo.
 Denny, R. B., Eureka, Mo.
 Douglas, J. T., Ferguson, Mo.
 Dunnivant, C. A., Kirkwood, Mo.
 Forsyth, R. C., Kirkwood, Mo.
 Greensfelder, H. B., Kirkwood, Mo.
 Guibor, F. E., Maplewood, Mo.
 Jensen, N. N., Florissant, Mo.
 Koch, O. W., Ballwin, Mo.
 Maisch, Aug., Manchester, Mo.
 Miles, H., Webster Groves, Mo.
 Mills, R. W., Webster Groves, Mo.
 Moore, R. D., Central, Mo.
 O'Brien, L. F., Sappington, Mo.
 Pfister, John D., Creve Coeur, Mo.
 Pitman, John, Kirkwood, Mo.
 Randle, H. T., Clayton, Mo.
 Thurnian, E. J., 2805 S. Kingshighway,
 St. Louis.
 Townsend, W. H., Maplewood, Mo.
 Will, S. J., Jefferson Barracks, Mo.
 Wyer, H. G., Kirkwood, Mo.
 Zuppann, Chas., Ballwin, Mo.

ST. LOUIS MEDICAL SOCIETY.

(All addresses St. Louis, Mo., unless
 otherwise specified.)

Abeken, F. W., 3531 S. Broadway.
 Albrecht, Franklin H., Humboldt Bldg.
 Alexander, Robert D., Mo. Pac. Hosp.
 Allison, Nathaniel, Humboldt Bldg.
 Alt, Adolf, 316 Metropolitan Bldg.
 Althaus, Carl, 2024 S. Jefferson Ave.
 Ambrose, Olney A., 6125 Barmter Ave.
 Ameiss, Frederick C., Varil Bldg.
 Amerland, J. H., 2739 Chippewa St.
 Amos, Newton W., 3001 Olive St.
 Amyx, Robert F., 1943 N. 11th St.
 Apperson, Edwin L., 912 N. Taylor Ave.
 Atkinson, Robert C., 3002 Lafayette Ave.
 Auf Der Heide, Wm. D., 2752 Arsenal
 St.
 Auler, Hugo A., 2708 Lynch St.
 Ayars, Treston R., 3901 Easton Ave.
 Babler, Edmund A., 4826 Delmar Ave.
 Bailey, Fred Warren, 3555A Arsenal St.
 Baker, Richard W., Altadena, Calif.
 Baker, William M., 5424 Easton Ave.
 Ball, Charles H., 4109A Lee Ave.
 Ball, James M., 4500 Olive St.
 Ball, Otho F., 603 Metropolitan Bldg.
 Barck, Carl, Humboldt Bldg.
 Barclay, Robert, 3894 Washington Ave.
 Bardenheier, F. G. A., 900 S. 4th St.
 Barker, William S., 1101 Tyler St.
 Barnes, A. S., Sr., 5434 Vernon Ave.
 Barnes, A. S., Jr., 210 Mo. Trust Bldg.
 Barnes, Percival C., 5434 Maple Ave.
 Barnes, Rollin H., 219 Metropolitan
 Bldg.
 Barr, Clarence M., Female Hospital.
 Barrington, Richard L., 208 Old Custom
 House.
 Bartlett, Willard, 4257 Washington Ave.
 Bartscher, Hugo W., 829 Bremen Ave.
 Bassett, Samuel T., City Hospital.
 Bauduy, Jerome K., 340 N. Spring Ave.
 Bauer, Charles E., 2104 N. 14th St.
 Baumgarten, Gustav, Humboldt Bldg.
 Baumgarten, Walter, Humboldt Bldg.
 Baumgartner, Conrad, 2108 Russell Ave.
 Becker, William H., 4743 Labadie Ave.
 Beckham, Genevieve S., 404 Century
 Bldg.
 Bedal, Adelheid C., 4367 Delmar Ave.
 Behrens, Louis H., 301 Times Bldg.
 Benker, Oscar H., 3613 S. Jefferson Ave.
 Bennett, Floyd W., 2837 Park Ave.
 Benson, Benjamin G., 2136 Benton St.
 Bishop, F. L., 4271 Washington Blvd.
 Blair, Vilray P., Linmar Bldg.
 Blattner, Fred O., 233 S. Jefferson Ave.
 Bliss, Malcolm A., Humboldt Bldg.
 Bock, Arminius F., 1109 N. Grand Ave.
 Boehm, Joseph L., 8th & Morgan Sts.
 Boemler, George, 1922 St. Louis Ave.
 Boggs, John D., 813 N. 18th St.
 Bohannon, Burton, 210 S. Jefferson Ave.
 Boisliniere, Louis C., 3561 Olive St.
 Bond, H. Wheeler, 17 Vandeventer Pl.
 Bond, Young H., 426 N. Grand Ave.

- Boogher, Leland, 512 Mo. Trust Bldg.
 Booth, David S., 425 Metropolitan Bldg.
 Borck, Edward, 3928 N. 20th St.
 Botts, McDowell, Frisco Hospital.
 Bradley, A. H., 619 Metropolitan Bldg.
 Brady, Jules M., 1467 Union Blvd.
 Brandenburger, L. A., 2900 Eads Ave.
 Brennan, John W., 2001 Olive St.
 Brooks, Henry S., 3557 Lafayette Ave.
 Brooks, Fred C., Grand & Lindell Aves.
 Broome, G. Wiley, 619 N. Kingshighway.
 Brown, John Y., 611 Metropolitan Bldg.
 Bryan, R. Shepard, 735 Century Bldg.
 Bryan, Wm. M. C., 3858 Westminster Pl.
 Buchanan, J. M., 721 N. Kingshighway.
 Buckwalter, John C., 309 Century Bldg.
 Buhman, Rudolph, 5264 Page Ave.
 Bunch, Rodney J., City Hospital.
 Burford, Cyrus E., 955 Hamilton Ave.
 Burnett, Edwin C., 548 Century Bldg.
 Burns, Robert, Lister Bldg.
 Cadwallader, I. H., 919 N. Taylor Ave.
 Cale, George W., 12 Lennox Pl.
 Calhoun, J. G., 601 Metropolitan Bldg.
 Calnane, John A., 5268 Maple Ave.
 Cameron, Solon, 4552 Ashland Ave.
 Campbell, A. V., 430 Globe-Democrat Bldg.
 Campbell, Given, 3429 Morgan St.
 Campbell, O. H., 3542 Washington Ave.
 Caplan, Leo, Lister Building.
 Carman, Russell D., 4318 Olive St.
 Carson, Gibbon W., 301 Century Bldg.
 Carson, Norman B., Humboldt Bldg.
 Chadlock, Charles G., Humboldt Bldg.
 Chapman, Henry N., 3821 Delmar Blvd.
 Charles, Joseph W., Humboldt Bldg.
 Clapper, William L., 5004 Delmar Blvd.
 Clark, E. S., 2713 Washington Ave.
 Clarke, B. William, Vanol Bldg.
 Clemens, J. R., 416 Metropolitan Bldg.
 Clopton, Malvern B., Humboldt Bldg.
 Collasowitz, A., 1500 Chouteau Ave.
 Connolly, P. D., 2556 N. Grand Ave.
 Cook, Geo. E., 1739 N. 9th St.
 Cook, Jerome E., 4133 Laclede Ave.
 Cooley, Edward L., 937 Hamilton Ave.
 Crandall, Geo. C., 4283 Olive St.
 Creveling, H. Clay, Humboldt Bldg.
 Crossen, Harry S., 4477 Delmar Blvd.
 Culp, Earl E., 2928 N. Vandeventer Ave.
 Cummings, Harry J., 219 Metropolitan Bldg.
 Curtis, A. N., 4205 Virginia Ave.
 Dalton, H. C., 1308A N. Grand Ave.
 Dames, Alphonse F., Easton & Goodfellow Aves.
 Davis, Louis H., 1030 Morrison Ave.
 Davis, Robert H., Lister Bldg.
 Davis, Wheeler, 5013A Page Ave.
 Dean, Jno. McH., 420 Metropolitan Bldg.
 Deutsch, Wm. S., 3135 Washington Ave.
 Dickerson, Harry W., 3848 Cook Ave.
 Dickerson, Wilmer L., 5424 Easton Ave.
 Dixon, Chas. H., Lister Bldg.
 Dorsett, E. Lee, 5070 Washington Ave.
 Dorsett, Walter B., Linmar Bldg.
 Doyle, Wm. J., 2312 Washington Ave.
 Drake, G. S., Jr., 3534 Washington Ave.
 Drescher, Fred B., 3860 S. Broadway.
 Dudley, Geo. F., 4043 McPherson Ave.
 Duncan, John H., Humboldt Bldg.
 Dutzi, August, 325 Souard St.
 Dwyer, Michael J., 822 S. Ewing Ave.
 Eberlein, Edwin W., 1208 Dillon St.
 Ehrenfest, H., 626 Metropolitan Bldg.
 Ehrenreich, Herman S., 1620 Carr St.
 Eidmann, W. P., 3160 Morganford Rd.
 Elbrecht, Oscar, Female Hospital.
 Elmer, Warren P., 346 N. Boyle Ave.
 Engelbach, Wm., Humboldt Bldg.
 Epstein, Meyer J., 4046 McPherson Ave.
 Esselbruegge, F. C., 3740 N. 11th St.
 Ewing, Arthur E., 5956 Cabanne Ave.
 Ewing, Fayette C., 450 Century Bldg.
 Eyermann, Edwin H., 1800 S. Broadway.
 Faber, John E., 2133 S. Jefferson Ave.
 Fahlen, Fred, Humboldt Bldg.
 Falk, John C., 4568 Page Ave.
 Farrar, John O'F., Lister Bldg.
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 Fisch, Carl, 3212 Pine St.
 Fischer, Waldemar E., Linmar Bldg.
 Fleming, A. W., 4137 Manchester Ave.
 Ford, W. H., G. D., Washington, D. C.
 Forster, Davis, 1115 Union Ave.
 Forster, Otto E., 513 Carleton Bldg.
 Fowler, S. R., 508 Carleton Bldg.
 Frankenthal, M. A., 4163 McPherson Ave.
 Frazer, H. S., 1111 Chouteau Ave.
 Freudenstein, Wm. H., 306 S. Ewing Ave.
 Freund, Newton M., 1440 S. 18th St.
 Friedman, Jacob, 308 N. 6th St.
 Frielingsdorf, E. H., 2202 S. Broadway.
 Fries, William A., 1544 S. Broadway.
 Fry, Frank R., Humboldt Bldg.
 Fuchs, W. H., 3202 Lafayette Ave.
 Fuhrmann, R. H., 3221 California Ave.
 Fulton, A. L., 617 Chouteau Ave.
 Funkhouser, R. M., 4354 Olive St.
 Furney, Elliott E., 3417 Morgan St.
 Gallagher, John F., 919 N. Sarah St.
 Garstang, D. Bule, Linmar Bldg.
 Gayler, Wenzel C., 3904 Laclede Ave.
 Geitz, Henry A., Humboldt Bldg.
 Gellhorn, George, Linmar Bldg.
 Glasgow, Frank A., 3894 Washington.
 Glennon, W. P., 420 Metropolitan Bldg.
 Godfrey, Geo. B., 900 S. 4th St.
 Goebel, Arthur, 3508 Manchester Ave.
 Goodwin, E. J., 603 Metropolitan Bldg.
 Gordon, F. N., 1542 Mississippi Ave.
 Gorin, M. Geo., 4225 W. Belle Pl.
 Gradwohl, R. B. H., 223 Victoria Bldg.
 Graham, Isaac E., 4577 Page Ave.
 Graham, Thomas E., City Dispensary, 11th & Market Sts.
 Grant, John M., 536 N. Taylor Ave.
 Graul, Henry P., 3353 Nebraska Ave.
 Graul, John D., 3512 Crittenden St.
 Graul, Robert E., 2905 Cherokee St.
 Graves, Wm. W., 727 Metropolitan Bldg.
 Gray, Isabel S., 333 N. Euclid Ave.
 Gray, Robert Q., Linmar Bldg.
 Green, John, Jr., 625 Metropolitan Bldg.
 Greer, Edward O., 2750 Park Ave.
 Gregg, Arthur M., 5800 Arsenal St.
 Greiner, Theodore, 5534A Easton Ave.
 Grindon, Joseph, 3894 Washington Ave.
 Gross, Julius H., 306 Oriol Bldg.
 Grosse, Louis W., 3665 Juniata St.
 Grote, Wm. F., 1225 Sullivan Ave.
 Guggenheim, L. T., 4058 Lindell Blvd.
 Guhman, Chas. N., 4298 Finney Ave.
 Guhman, J. O., 4531 Washington Ave.
 Guhman, M. G., 3505 N. Jefferson Ave.
 Gunlach, Arthur, 2202 University St.
 Haase, Moses E., 4263 W. Pine Blvd.
 Habermaas, Albert, 3817 Cleveland Ave.
 Hall, Harry R., 925 Goodfellow Ave.
 Hall, W. A., 1597 Tower Grove Ave.
 Hallam, John C., 301 Mermod-Jaccard Bldg.
 Hardaway, Wm. A., Lister Bldg.
 Hardy, Joseph, 7620 S. Broadway.
 Hardy, Wm. F., 2302 S. Jefferson Ave.
 Harmann, Martin F., 3441 N. 9th St.
 Harnisch, Henry J., 2407 S. 18th St.
 Harral, Walter E., 6201 Etzel Ave.
 Harrell, H. Jackson, 4217 Olive St.
 Harris, Downey L., 5001 Morgan St.
 Harscher, Andrew, 3559 Marine Ave.
 Hartmann, Jacob A., 1228 S. Broadway.
 Hartwig, Otto A., 219 N. 14th St.
 Hauck, E. F., 1638 S. Jefferson Ave.
 Hauck, Louis, 3555A Arsenal St.
 Hawley, Nelson J., 3864 Cleveland Ave.
 Hawley, Thomas S., 3065 Easton Ave.
 Hempelmann, Louis H., 626 Metropolitan Bldg.
 Henckler, Emil H., 3500 N. 14th St.
 Henderson, Frank L., Humboldt Bldg.
 Henke, August F., 2210 Howard St.
 Hennerich, Jos. P., 2919 S. Broadway.
 Henske, Andrew A., 1504 St. Louis Ave.
 Henske, A. C., 2435A N. Vandeventer Ave.
 Herchenroeder, L. C., 2904 Park Ave.
 Hermann, Henry W., 3654 Delmar Ave.
 Heuer, Philip J., Humboldt Bldg.
 Heyer, Chas., 910 N. 10th St.
 Hill, Roland, 4605 Delmar Ave.
 Hinchey, Frank, Humboldt Bldg.
 Hirschi, Wm. T., 2306 St. Louis Ave.
 Hochdoerfer, D. F., 3410 California Ave.
 Hoeffler, John P., 2304 S. Broadway.

- Hoffmann, Philip, 3337 Washington Ave.
Hoge, M. W., 601 Metropolitan Bldg.
Hogeboom, Roche W., Frisco Hospital.
Holman, Richard S., 3951 Delmar Ave.
Holt, Elmer E., 1532 Franklin Ave.
Holtgrewe, F. W., 1601 Blair Ave.
Homan, George, 323 Odd Fellows Bldg.
Hopkins, Milton J., 3402 Pine St.
Hopkins, Ross, 1055 Hamilton Ave.
Hopkins, Thomas A., 319 Century Bldg.
Houwink, Joseph J., Humboldt Bldg.
Howard, O. L., 4213 Natural Bridge Rd.
Huber, Julius B., 2752 Chippewa St.
Huelsmann, Leo C., 2504 N. 14th St.
Hughes, Harry S., 1234 Hodiament Ave.
Humphrey, J. Harrison, 212 Ozark Bldg.
Hypes, Benjamin M., 2005 Victor St.
Ilg, Theodore, 3029 S. Grand Ave.
Iralson, Abraham, 6200 Columbia Ave.
Jacobs, Max W., 3000 Olive St.
Jacobson, Henry, 301 Mo. Trust Bldg.
James, John A. J., 1006 Carleton Bldg.
Jennings, J. Ellis, 508 Carleton Bldg.
Jennings, M. D., 4101 Washington Ave.
Johnson, E. Horace, 2433 N. Grand Ave.
Johnson, Frank P., 3744 Pinney Ave.
Johnson, Harry McC., Linmar Bldg.
Jonas, Ernst, 465 N. Taylor Ave.
Jones, M. D., 4068 Washington Ave.
Jungk, Carl W., 2249 S. Jefferson Ave.
Kane, R. Emmet, Humboldt Bldg.
Keber, John B., 3832 W. Pine St.
Keehn, Gustav A., 2702 N. Grand Ave.
Kennedy, Andrew F., 416 Mermood-Jaccard Bldg.
Kennedy, Walter U., 1121 Cass Ave.
Kern, B. C., 5800 Arsenal St.
Kern, John H., 3916 N. Grand Ave.
Kessler, E. H., 3446 Shenandoah Ave.
Kieffer, Alonzo R., 4268 W. Belle Pl.
Kieffer, V. B., 518 Metropolitan Bldg.
Kier, William F., 3609 Lindell Blvd.
Kimball, A. C., Grand & Franklin Aves.
Kirchner, Walter C. G., City Hospital.
Klenk, Chas. L., 2105 S. Broadway.
Klie, Constantine M. T., 2429 Wren Ave.
Klie, G. H. Charles, 5100 N. Broadway.
Klinefelter, M. L., 704 N. Taylor Ave.
Klokke, W. Emil, 1316 Mississippi Ave.
Koenig, George W., 740 S. 4th St.
Koetter, Albert F., 1023 N. Grand Ave.
Kolbenheyer, Fred., 2006 Lafayette Ave.
Kollme, Otto, 2354 Park Ave.
Koontz, Carl J., 793 Aubert Ave.
Krebs, Franz J. V., 1906 St. Louis Ave.
Krebs, George A., 2709 S. 11th St.
Krehnning, Wm. G., 4041A St. Louis Ave.
Kroeger, G. B., 3622 Garfield Ave.
Krug, Frederick H., 2506 N. 15th St.
Kuhlmann, F. C., 2135 St. Louis Ave.
Kuhn, Daniel, 1746 Chouteau Ave.
Kurtzeborn, E. E., 5005A Delmar Ave.
Lare, Harry S. P., 4644 Morgan St.
Larew, John T., Olivia Bldg.
Lawrence, Wm. S., 1913 N. Grand Ave.
Leavy, John A., 4340 Morgan St.
Leggatt, Abraham C., Chemical Bldg.
Leighton, Wm. E., 346 N. Boyle Ave.
Lemen, Joseph R., Vanol Bldg.
Levy, Aaron, 4500 Olive St.
Lewis, Bransford, 1050 Century Bldg.
Lightner, C. R., 617 Metropolitan Bldg.
Link, Jos. J., 211 Metropolitan Bldg.
Lipsitz, S. T., City Hospital.
Loeb, Hanau W., Humboldt Bldg.
Loeb, Virgil, Humboldt Bldg.
Loewenstein, H. M., 2615 N. Taylor Ave.
Loftus, Wm. V., 4911 Page Ave.
Long, Jos. M., 513 N. Sarah St.
Luedde, Wm. H., 310 Metropolitan Bldg.
Luhn, Walter D., 2839A Cherokee St.
Lund, Herluf G., 1050 Century Bldg.
Luton, Lionel S., 1023 N. Grand Ave.
Lutz, Frank J., 1630 S. Grand Ave.
Lyman, Harry W., 802 Carleton Bldg.
Lyon, George E., 732 Planters Hotel.
Lyon, Hartwell N., Humboldt Bldg.
McAms, L. Clifford, Humboldt Bldg.
McBratney, E. W., 7619 S. Broadway.
McCandless, Wm. A., 5026 Washington Ave.
McConnell, Guthrie, 4421 Berlin Ave.
McGann, Peter J., 607 S. Broadway.
McLean, Mary H., 4339 Delmar Ave.
Marchildon, John W., Laclede & Vandeventer Aves.
Mardorf, Wm. C., 3634 Shenandoah Ave.
Marks, Heine, 2930 Morgan St.
Marquardt, A. V., 522 Century Bldg.
Martin, Chas. P., 4111 N. Grand Ave.
Martin, Tillie A., 426 Metropolitan Bldg.
Marx, Ella, 4269 Delmar Ave.
Max, Clarence O. C., 3862A Olive St.
May, Albert, 1803 Morgan St.
Mayes, Joseph F., 1801A Olive St.
Meinhard, Joseph, 921 Chouteau Ave.
Meisenbach, A. H., 229 S. Broadway.
Meisenbach, A. Edward, 2343 Olive St.
Meng, Edwin R., 728 N. Taylor Ave.
Menkhaus, John B., 4607 Easton Ave.
Meyer, Alfred H., 4624 Virginia Ave.
Meyer, Harry H., 1823 N. Taylor Ave.
Millar, Reginald C. M., 4344 Easton Ave.
Miller, H. Edward, 2257 Missouri Ave.
Miller, John J., 4439 Morgan St.
Miller, Robert F., 318 Frisco Bldg.
Miller, W. Jackson, 3014 Park Ave.
Moeller, Carl E., 1419 S. 7th St.
Mook, Wm. H., Humboldt Bldg.
Moore, B. W., 3634 Washington Ave.
Moore, Harry M., Linmar Bldg.
Moore, William G., 86 Vandeventer Pl.
Morfit, John C., Humboldt Bldg.
Morrell, M. Pinckney, 3693 Olive St.
Morris, Chris. C., 2945 Franklin Ave.
Morse, Frank L., 1100 Madison St.
Mudd, Harvey G., Humboldt Bldg.
Mueller, Ernst H., 3548 Arsenal St.
Mueller, Geo. L., 1125 Madison St.
Muetze, Henry, 3201 Shenandoah Ave.
Munsch, Augustin P., 4637 Easton Ave.
Munson, Chas. L., 1145 S. 7th St.
Murphy, John C., 4263 Morgan St.
Murphy, R. Brent, 6120 Victoria St.
Myer, Jesse S., Linmar Bldg.
Myerdick, A. H., 1704 N. Grand Ave.
Nash, W. H., 405 Commercial Bldg.
Neilson, Chas. H., Med. Dept., St. Louis University.
Nelson, Edwin M., 965 Hamilton Ave.
Neuhoff, Fritz, 1318 Chouteau Ave.
Newman, Louis E., Humboldt Bldg.
Newman, Samuel E., 4323 Laclede Ave.
Nicholson, Clarence M., 4500 Olive St.
Niebruegge, H. T., 2003 Salisbury St.
Nietert, Herman L., 522 Century Bldg.
Norris, Edwin J., 4223 Russell Ave.
North, Emmett P., 3920 Russell Ave.
Oatman, Louis J., 4217 Olive St.
Oehler, Emanuel F., 1432 Penrose St.
Ogle, Oliver L., 2625 St. Louis Ave.
O'Keefe, James J., 1011 N. Leffingwell Ave.
O'Reilly, Archer, 423 Metropolitan Bldg.
Orth, Carl, 1437 Penrose St.
Oутten, Warren B., Mo. Pac. Hospital.
Owen, William C., 3846 Folsom Ave.
Padberg, Louis R., 3612A Arsenal St.
Paine, George F., Carleton Bldg.
Paine, Alexander D., Frisco Hospital.
Park, George M., 5352 Page Ave.
Parker, Chas. W., 3502 N. Jefferson Ave.
Parker, Frederick F., 1423 Euclid Ave.
Parrish, George, 619 N. Kingshighway.
Pangsten, C. F., 2230 College Ave.
Pierce, Harry M., 4046 N. Grand Ave.
Pitzman, Frank, City Hospital.
Polgnee, Frank E., 917 Hickory St.
Pollman, Ludwig P., 2002 St. Louis Ave.
Pope, Chas. H., 1557 S. Jefferson Ave.
Porter, William, 3886 Washington Ave.
Post, M. Hayward, 5371 Waterman Ave.
Potts, J. D., 518 Metropolitan Bldg.
Powell, Ignatius W., N. E. Cor. Grand & Easton Aves.
Prinz, Herman, 602 Century Bldg.
Raithel, G. Herman, 1446 Hogan St.
Rassieur, Louis, 315 Metropolitan Bldg.
Ravold, Amand, 1208 Chemical Bldg.
Reber, Robert L., 1837 S. 11th St.
Reeder, Francis L., 4629 Cook Ave.
Reed, Elizabeth B., Lister Bldg.
Rehfeldt, Chas. S., 2255 S. Jefferson Ave.
Reim, W. Hugo, 3904 Folsom St.
Remme, Charles T., 400 S. 14th St.
Reynolds, M. P., 5805A Easton Ave.
Rice, D. Frank, 5145 Cabanne Ave.
Riesmeyer, L. T., 2838 Lafayette Ave.
Riley, Cassius M., 523 Pendleton Ave.

Riley, Ralph D., 4641 Washington Ave.
 Ring, Frank R., 619 Chemical Bldg.
 Robertson, William M., Humboldt Bldg.
 Rohlfing, Charles G., 1721 Wash St.
 Rohlfing, H. A. L., 2602 Laclede Ave.
 Rohlfing, Louis C., 3521 Dodier St.
 Rothstein, Hugo M., 3309 S. 13th St.
 Rotter, Charles F., 1910 Arsenal St.
 Ruddell, Geo. W., 926 Academy Ave.
 Rush, William H., 3540 Washington Ave.
 Sahlender, Otto L., 321 N. Grand Ave.
 Salter, John C., 3634 Washington Ave.
 Sauer, William E., Humboldt Bldg.
 Saunders, E. W., 3003 Lafayette Ave.
 Saxl, Ernest, 212 Metropolitan Bldg.
 Schaub, Charles W., 2302 Salisbury St.
 Schery, Charles W., 917 Allen Ave.
 Schisler, E. J., Jefferson & Russell Aves.
 Schleiffarth, Chas. W., 3830 Juniata St.
 Schleiffarth, Edgar L., 8 S. Broadway.
 Schlossstein, A. G., 3153 Longfellow Ave.
 Schlueter, Robt. E., 310 Metropolitan Bldg.
 Schmalthorst, D. E., 8212 N. Broadway.
 Scholz, Paul C., 3201 Franklin Ave.
 Scholz, Philip, 3803 N. 14th St.
 Scholz, Roy P., 1110 Ferry St.
 Schuchat, W. Louis, 2200 Chouteau Ave.
 Schulz, Edward, 1716 S. 7th St.
 Schwab, Sidney I., Humboldt Bldg.
 Schwarz, Henry, 440 N. Newstead Ave.
 Schwarze, August, 2921 S. Jefferson Ave.
 Scott, James M., 3313 Morgan St.
 Seelig, Major G., Humboldt Bldg.
 Semple, Nathaniel M., Humboldt Bldg.
 Shankland, J. Wilbert, City Hospital.
 Shanklin, Benjamin, 2734 Chouteau Ave.
 Shapleigh, John B., Humboldt Bldg.
 Sharpe, Norville W., 3520 Lucas Ave.
 Shattinger, Chas., 2924 S. Grand Ave.
 Sheahan, Edwin L., 3637 Finney Ave.
 Shields, William E., Linmar Bldg.
 Shoemaker, J. F., 1006 Carleton Bldg.
 Shoemaker, Wm. A., 1006 Carleton Bldg.
 Shutt, Cleveland H., City Hospital.
 Sieving, Henry J. C., 1125 St. Louis Ave.
 Simon, Frederick C., 1835 Cass Ave.
 Simon, John H., 4062 Manchester Ave.
 Singer, Jacob J., 212 Ozark Bldg.
 Skinner, Caroline B., Grand & Olive St.
 Sluder, Greenfield, 3542 Washington Ave.
 Smith, Carroll, Humboldt Bldg.
 Smith, Elsworth, Jr., Humboldt Bldg.
 Smith, James A., Mo. Pac. Hospital.
 Smith, John Campbell, Humboldt Bldg.
 Smith, Seth P., 2331 Eugenia St.
 Soper, H. W., 626 Metropolitan Bldg.
 Spain, Kate C., 802 Carleton Bldg.
 Spencer, H. N., 2723 Washington Ave.
 Spencer, Selden, 2723 Washington Ave.
 Spiegelhalter, Joseph, 2166 Lafayette Ave.
 Spinzig, Felix, 937 Park Ave.
 Stauffer, William H., Humboldt Bldg.
 Steedman, Isaiah G. W., 4200 Washington Ave.
 Steer, Justin, 3126 Washington Ave.
 Steiner, Albert S., 1507 Destrehan St.
 Stewart, Floyd, 1524 Chemical Bldg.
 Stewart, James, 4847 Page Ave.
 Stewart, John, 4909 St. Louis Ave.
 Stocking, Lyman C., 1304 Academy Ave.
 Stockwell, Benj. E., 2345 S. Broadway.
 Streutker, C. E. F., 3828 S. Broadway.
 Summa, Henry H., 5703 Florissant Ave.
 Summa, Hugo, 411 Metropolitan Bldg.
 Swahlen, P. H., 415 Metropolitan Bldg.
 Talbott, Hudson, 426 Metropolitan Bldg.
 Taussig, A. E., 3519 Washington Ave.
 Taussig, F. J., 727 Metropolitan Bldg.
 Thierry, C. W., 501 Metropolitan Bldg.
 Thompson, Ralph L., 1402 S. Grand Ave.
 Thumser, Lorenz, 1808 Victor St.
 Tiedemann, E. F., 3635 Cleveland Ave.
 Tooker, Chas. W., 409 N. Grand Ave.
 Tuholks, Herman, 465 N. Taylor Ave.
 Tuholks, Moritz C., 4130 Easton Ave.
 Tupper, Paul Y., Linmar Bldg.
 Tuttle, Geo. M., 4519 Washington Ave.
 Ude, Waldemar, 3546 Gravois Ave.

Valle, Jules F., 4955 Maryland Ave.
 Vandover, Samuel T., 903 Morrison Ave.
 Van Hoefen, Samuel, 8408 Hall's Ferry Rd.
 Van Hoefen, S. A., 8313 Hall's Ferry Rd.
 Vasterling, Paul F., Mo. Pac. Hospital.
 Vaughan, John W., Euclid & Washington Aves.
 Vielt, Edward J., 6901 S. Broadway.
 Vierling, Otto, 4555 Adkins Ave.
 Vinyard, Paul, 3901 Park Ave.
 Vitt, Rudolph S., 3924 S. Broadway.
 Vogler, Alfred T., 1523 Penrose St.
 Vogt, Gustav W., 4977 Lotus Ave.
 Vogt, Wm. H., 732 Metropolitan Bldg.
 Von der Au, Otto L., 2306 S. 13th St.
 Vosburg, Chas. A., 4149 Lindell Blvd.
 Wagers, Arthur J., 3773 W. Pine St.
 Walker, Clarence E., 6422 Virginia Ave.
 Ward, Edgar P., 2831 Shenandoah Ave.
 Warfield, L. M., 3806 Washington Ave.
 Watson, Chas. M., St. John's Hospital.
 Webb, William, 5575 Delmar Ave.
 Weinsberg, Chas. H., 1531 S. 11th St.
 Weinsberg, Julius H., 2015 Russell Ave.
 Weiss, William, Mo. Pac. Hospital.
 Weiterer, Herman L., 2728 N. 11th St.
 Wesseler, F. W., 2819 S. 13th St.
 Westbrook, George W., 415 S. 23rd St.
 Westerman, C. M., 512 Mo. Trust Bldg.
 Whelpley, Henry M., 2342 Albion Place.
 White, Chas. A., 420 Holland Bldg.
 Wichmann, A. G., 1624 S. Jefferson Ave.
 Wichmann, H. L., 3229 S. Jefferson Ave.
 Wiener, Meyer, Carleton Bldg.
 Wilkes, Benj. A., Linmar Bldg.
 Williams, Abram D., Hotel Deckard, Bedford, Ind.
 Williamson, Llewellyn P., 611 Metropolitan Bldg.
 Wilson, Allen, 1514 Waggoner.
 Wilson, Alvah M., Humboldt Bldg.
 Wilson, Charles A., 635 Century Bldg.
 Wilson, Robert E., 817 Third National Bank Bldg.
 Winn, William B., 2707A Lafayette Ave.
 Winter, William O., 3630 S. Broadway.
 Wobus, Reinhard E., 2022 Salisbury.
 Wolfner, Henry L., 500 Carleton Bldg.
 Wood, William E., 454 Century Bldg.
 Woodruff, F. E., 2925 Washington Ave.
 Woolsey, Ross A., Frisco Hospital.
 Wyche, Charles, Humboldt Bldg.
 Yost, Walter B., 1119 Union Blvd.
 Young, Anthony O., 4229 Olive St.
 Zahorsky, John, 1460 S. Grand Ave.

SCHUYLER COUNTY.

Bridges, J. B., Downing, Mo.
 Gerwig, H. E., Downing, Mo.
 Mitchell, E. L., Lancaster, Mo.
 Mitchell, W. F., Lancaster, Mo.

SCOTLAND COUNTY.

Alexander, W. E., Memphis, Mo.
 Baker, P. M., Arbela, Mo.
 Bondurant, W. E. H., Memphis, Mo.
 Davis, A. L., Arbela, Mo.
 Foster, F. G., Memphis, Mo.
 Maynard, G. K., Hitt, Mo.
 Parrish, E. E., Memphis, Mo.
 Pile, O. F., Memphis, Mo.
 Platter, A. E., Memphis, Mo.
 Shacklett, J. A., Rutledge, Mo.

SCOTT COUNTY.

Atkisson, J. A., Morehouse, Mo.
 Blockledge, H. T., Commerce, Mo.
 Cannon, G. S., Farnfelt, Mo.
 Cline, J. A., Vanduser, Mo.
 Harris, W. E., Oran, Mo.
 Haw, U. P., Benton, Mo.
 Hutton, W. S., Farnfelt, Mo.
 Lucas, H. R., Chaffee, Mo.
 McCabe, R. S., Chaffee, Mo.
 Mayfield, L. S., Graysboro, Mo.
 Miley, J. A., Sikeston, Mo.
 Ogilvie, Fred, Blodgett, Mo.
 Rodenmeyer, Henry, Kelso, Mo.
 Sparks, R. A., Blodgett, Mo.

Tate, P. S., Farnfeld, Mo.
 Tomlinson, T. E., Morley, Mo.
 Wade, S. J., Benton, Mo.
 Wescoat, W. H., Oran, Mo.

SHELBY COUNTY.

Carson, Wm., Shelbyville, Mo.
 Chapman, Chas., Shelby, Mo.
 Dallas, L. W., Hunnewell, Mo.
 Daniel, J. R., Clarence, Mo.
 Dodson, D. A., Hunnewell, Mo.
 Owen, W. W., Shelby, Mo.
 Pollard, H. M., Shelby, Mo.
 Reed, N. M., Clarence, Mo.
 Singleton, D. E., Shelby, Mo.
 Smith, J. D., Shelby, Mo.
 Vaughn, H. C., Shelby, Mo.
 White, A. T., Lakenan, Mo.
 Wood, A. G., Lentner, Mo.
 Wood, A. M., Lentner, Mo.

STODDARD COUNTY.

Allen, T. C., Bernie, Mo.
 Ashley, John, Bloomfield, Mo.
 Dieckman, W. C., Dexter, Mo.
 Evans, S. M., Bloomfield, Mo.
 Kerr, W. F., Dudley, Mo.
 Moore, Edward, Bloomfield, Mo.
 Wingo, T. B., Fulton, Mo.

SULLIVAN COUNTY.

Garner, R. L., Pollack, Mo.
 Herington, Warner, Green City, Mo.
 Holladay, S. J., Pollack, Mo.
 Montgomery, J. S., Milan, Mo.
 Poole, A. R., Milan, Mo.
 Porter, E. S., Milan, Mo.
 Roberts, J. C., Boynton, Mo.
 Shriver, C. F., Harris, Mo.
 Widner, A., Newtown, Mo.
 Wilson, C. S., Green City, Mo.
 Witter, W. L. M., Milan, Mo.

TANEY COUNTY.

Balwin, F. V., Forsyth, Mo.
 Burdett, Charles W., Branson, Mo.
 Compton, J. P., Branson, Mo.
 Houston, O. C., Forsyth, Mo.
 Humphreys, T. H., Kisse Mills, Mo.
 Irwin, R. M., Gretna, Mo.
 McIntyre, Elizabeth, Branson, Mo.
 Mitchell, Guy B., Forsyth, Mo.
 Nicholson, J. O., Proteem, Mo.

VERNON COUNTY.

Adams, W. T., Richards, Mo.
 Altham, A. G., Metz, Mo.

Amerman, I. W., Nevada, Mo.
 Bohannon, W. T., Nevada, Mo.
 Buchanan, J. Robt., Nevada, Mo.
 Callaway, L. H., Nevada, Mo.
 Chambers, James C., Schell City, Mo.
 Churchill, E. R., Nevada, Mo.
 Craig, T. B. M., Nevada, Mo.
 Colson, J. R., Schell City, Mo.
 DeVilbiss, E. F., Nevada, Mo.
 Dulin, E. A., Nevada, Mo.
 Farrington, O. P., Moundville, Mo.
 Jarvis, H. C., Schell City, Mo.
 McLemore, T., Nevada, Mo.
 Mackey, A. H., Gorin, Mo.
 Manahan, J. H., Bronaugh, Mo.
 Mead, S. T., Nevada, Mo.
 Popplewell, W. H., Sheldon, Mo.
 Primm, W. B., Deerfield, Mo.
 Robinson, G. Wilse, Nevada, Mo.
 Robinson, J. F., Nevada, Mo.
 Royston, W. P., Harwood, Mo.
 Todd, T. B., Richards, Mo.
 Williams, V. O., Nevada, Mo.
 Willson, G. C., Nevada, Mo.
 Yater, J. M., Nevada, Mo.

WAYNE COUNTY.

Bailey, W. S., Leeper, Mo.
 Gilmer, J. E., Piedmont, Mo.
 Hale, J. W., Greenville, Mo.
 Loney, G. W., Piedmont, Mo.
 Owens, R. J., Mill Spring, Mo.
 Sebastain, J. P., Williamsville, Mo.

WEBSTER COUNTY.

Atkins, W. A., Rogersville, Mo.
 Bailey, E. M., Elkland, Mo.
 Beatie, W. R., Marshfield, Mo.
 Bollinger, W. H., Seymour, Mo.
 Bruton, T. S., Seymour, Mo.
 Cantwell, B. T., Rogersville, Mo.
 Florence, T. S., Marshfield, Mo.
 Highfill, M., Marshfield, Mo.
 James, E. F., Marshfield, Mo.
 McHaffie, C. H., Rogersville, Mo.
 Mott, J. R., Northview, Mo.
 Rabenan, W. J., Fordland, Mo.
 Somers, W. R., Niangua, Mo.
 Trimble, Eli, Seymour, Mo.
 Williams, D. A., Niangua, Mo.

WORTH COUNTY.

Dove, P. O., Allendale, Mo.
 McKinley, W. E., State Hospital, St. Joseph, Mo.
 Nesbitt, E. P., Sheridan, Mo.
 Phipps, J. K., Grant City, Mo.
 Robertson, W. A., Allendale, Mo.

BOOK REVIEWS

LIFE OF NATHAN SMITH DAVIS, M. D., "FATHER OF THE AMERICAN MEDICAL ASSOCIATION." By Isaac N. Danforth, A. M., M. D., Chicago. Published by Cleveland Press, Chicago, Ill. English silk binding, \$2.00.

Dr. Nathan Smith Davis was probably one of the strongest and most important personalities in the ranks of American medicine. He did more in uplifting the profession as a whole than any other man of his time. A careful study of the charming narrative of Davis' life, as told in this volume, might well initiate every student into the meaning and possibilities of a medical career, and since we approach commencement time we recommend this book as a useful gift to graduating students and professional friends.

DISEASES OF THE GENITO-URINARY ORGANS AND THE KIDNEY. By Robert H. Greene, M. D., Professor of Genito-Urinary Surgery at the Fordham University, New York; and Harlow Brooks, M. D., Assistant Professor of Pathology, University and Bellevue Hospital Medical School. Octavo of 536 pages, profusely illustrated. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$5.00 net; half morocco, \$6.50 net.

This new work covers completely the subject of genito-urinary surgery, presenting both the medical and surgical sides. It has been designed as a work of quick reference, and is written in a clear, condensed style. The text is profusely illustrated with original line drawings, showing the various steps of the operations described.

TREATMENT OF INTERNAL DISEASES. By Dr. Norbert Ortner of the University of Vienna. Edited by Nathaniel Bowditch Potter, Columbia University, New York. Translated by F. H. Bartlett, M. D., from the fourth German edition. Octavo 658 pages. Cloth, \$5.00 net. J. B. Lippincott Co., Philadelphia, 1908.

The scope of this book is treatment, not prophylaxis, only so much of the pathologic physiology of the diseases being discussed as bears upon rational treatment. The importance of mechanical, dietetic, climatic and all extra-medicinal methods is shown, which today in therapeutics hold a place at least equal in value to the prescribing of drugs. Thus the volume contains descriptions of all well known climatic resorts, the chemical analysis of widely used mineral waters, always with a careful consideration of the indications for their employment in special conditions.

The editor has further improved the value of this excellent work by adapting all references to climatology, hygiene, diet, etc., to the special needs of the American practitioner, e. g., by adding a list of American water resorts, or changing prescriptions to conform with the American pharmacopeia.

THE MELLIN'S FOOD METHOD OF PERCENTAGE FEEDING. Published by Mellin's Food Company, Boston.

This book, recently from the press of the Mellin's Food Company, contains much important information not to be found in general books of reference, and shows much painstaking experiment and research in its preparation. The directions for preparing creams, top-milks, bottom-milks, whey, etc., cover the subject very thoroughly; these alone should be of great value to physicians. The tables of formulæ for feeding mixtures for infants, include almost every desired combination, through a wide range of variations. The object of the book is to save the busy practitioner the computations necessary for the determination of the percentages of nutritive constituents of any selected formula and to enable him easily to change the ingredients in said formula to any proportions desired.

A MANUAL OF THE PRACTICE OF MEDICINE. By A. A. Stevens, A. M., M. D., Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania. Eighth Edition, Revised. 12mo of 558 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1907. Flexible leather, \$2.50 net.

This new, eighth edition of Dr. Stevens' Manual maintains the high standard of former editions. The book needs no introduction to the profession. The hope that "the work may still be considered as offering a concise, but clear and accurate representation of the essential facts of the practice of medicine," is most certainly realized. There is no book which meets so well the needs of the student, or offers the practitioner so rapid and safe a review, as does this Manual. How well have the essential facts of practice been condensed, and at the same time made assimilable, in this volume of 558 pages! The paper, the type, the illustrations, the binding, the size, are all that could be desired.

D. C. G.

THE INTERNAL SECRETIONS AND THE PRINCIPLES OF MEDICINE. By Charles E. De M. Sajous, M. D., Fellow of the College of Physicians, of Philadelphia; Member of the American Philosophical Society, the Academy of Natural Sciences, of Philadelphia, etc. Volume Second. With twenty-five illustrations. F. A. Davis Company, Publishers, Philadelphia, Penn.

Sajous' second volume on Internal Secretions, a most comprehensive and voluminous work, has been out now several months. It covers, from the author's standpoint, biology, pharmacodynamics, pathogenesis and applied therapeutics. From the bibliography and the vast amount of statistics and data presented, the reader is impressed with the extensive research done by the author in the literature of the world.

The subject of the internal secretions and ductless glands is a most important and fascinating one, and at present is occupying the time and thought of investigators and physiologists of both continents. It is recognized by the most careful investigators that both disease of and experiment upon the ductless glands prove an important part played by the internal secretions in body metabolism.

It is very evident, however, that Sajous' theories and positively stated conclusions in regard to metabolism and functional control, by the adrenals and pituitary gland, cannot be accepted as final, nor, in most instances, as probable.

If this volume represented the results of personal experimentation, investigation and observation, it would have much more weight. But the methods adopted do not appeal to the practical worker, nor to the scientific man. Hence, in the reviewer's opinion, though the volume contains much of value and suggestion, and some theories which have a basis of fact, it is not a treatise which can safely be placed in the hands of the general practitioner or the average teacher of physiology as a text book to follow.

S. P. C.

INTERNATIONAL CLINICS. Vol. IV, 17th Series, 1907. J. B. Lippincott Co., Publishers, Philadelphia.

The contents of this volume are so rich in meat that a short review becomes almost impossible. Perhaps the most striking paper is that of Dr. P. Emile Weil (Paris), who finds that injections of fresh serum taken from rabbits or horses act as a prophylactic against hemorrhage, even in congenital hemophilia. If Weil's observations are correct they are of very extraordinary importance. McPhedran (Toronto) contributes a scholarly article on the early diagnosis of cancer of the stomach. LeConte gives a critical report of a surgical rarity, a case of strangulated, undescended, sarcomatous testicle. Only two similar cases have been recorded. Intraspinal injections of magnesium sulphate are credited, by J. H. Norman, with saving one patient out of a series of four suffering from tetanus while the sufferings of those who died were eased by the treatment. Pancoast's Radiographic Study of Gastroptosis is very thoroughly illustrated and deserves attention. Calmette presents his views on the ophthalmo-reaction to tuberculin which bears his name.

J. F. B.

County Societies in Affiliation with the State Medical Association.

County.	President.	Address of President.	Secretary.	Address of Sec'y.
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Dunklin.....	N. F. Kelley.....	Kennett.....	Paul Baldwin.....	Kennett.
Franklin.....	J. P. Dunigan.....	Sullivan.....	A. C. Brown.....	Moselle.
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Platte.....	W. D. Swaney.....	Linkville.....	F. M. Shafer.....	Edgerton.
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Putnam.....	C. H. Carryer.....	Unionville.....	J. A. Townsend.....	Unionville.
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Saline.....	D. C. Gore.....	Marshall.....	D. F. Bell.....	Marshall.
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JOURNAL MISSOURI STATE MEDICAL ASSOCIATION

Volume IV

JUNE, 1908.

Number 12

ORIGINAL ARTICLES

ANNUAL ADDRESS OF THE PRESIDENT.*

BY W. S. ALLEE, M. D., OLEAN, MO.

The Missouri State Medical Association has a membership of two thousand, five hundred active, able and efficient physicians, the leaders in thought and action in the medical profession of the state. To be president of such an organization is an honor that the most renowned of our number might well covet. I am unable to express to you, as I would wish, my appreciation of the honor conferred in electing me president of this body. I can simply say that I thank you with all my heart. I am not vain enough to suppose that my election was due to personal merit, nor as a reward for service rendered the Association, but rather was it intended as recognition of an element in our profession—the country doctor.

I congratulate you on the health and vigor of our Association. While we have not increased our membership in the past year as I could have wished, much has been done to stimulate that loyalty and interest in our cause which is so essential to permanent success.

Drs. McAlester and Goodwin, each in his sphere, has labored zealously to promote interest and harmony in every section. Their efforts have greatly assisted the councilors and county secretaries, the officials of all others, upon whom must fall the burden of promoting life and maintaining interest in the county societies. The various committees, elective and appointive, have discharged their duties faithfully and are entitled to our sincere thanks.

The present plan of organization has gone beyond the stage of experiment and time has proven its practicability for good in spite of the evil predictions of able, but misguided members of our profession. There is a harmonious sentiment prevailing in the ranks of the profession, hitherto unknown, and the possibilities for good results from present conditions are practically boundless.

In 1907, at our meeting in Jefferson City, we celebrated the semi-

*Read at the Fifty-first Annual Meeting, Missouri State Medical Association, Springfield, May, 1908.

centennial of our Association, taking stock, as it were, of what had been accomplished to that date. We are now entering upon a new era and I predict greater and more beneficent results to be achieved in the next half century, for our profession and for humanity, than any accredited to the past. It is a good omen that our first meeting of the second half of the century is being held in the "Queen City of the Ozarks;" may we receive inspiration and courage from the bracing atmosphere for which this region is noted, as well as the virility and energy shown by the thriving and hospitable people who have made Springfield the metropolis of this salubrious clime.

While our state has made such strides in population, agriculture, mines, manufactures and commerce, as to entitle her to the appellation of "Imperial Missouri," our profession has not been derelict in meeting the responsibilities incident to this most desirable condition. From an economic standpoint the medical profession must be reckoned with, for it stands second to none in the important results accruing from efficient service. No section or state can prosper in material resources to the limit permissible by nature, location and environment, unless the earning capacity of its citizens be kept at the highest point by the protection of health, life and limb. Thanks to the progressive element in our profession, backed by the powerful influence of this Association, professional pride has been stimulated and high-class work is being done by doctors in this state. The requirements for a license to practice medicine and surgery in Missouri are being raised so as to compare favorably with the most exacting laws of any state in the union. The State Board of Health has attempted to carry out in good faith the provisions of the law in issuing licenses, as well as in their revocation for just cause. We will not recede from the advanced position taken, but will press forward until we have a law that is ideal, or at least, the best which men may devise and enforce. It is always charged by those who would treat the sick by special or unrecognized methods and without a knowledge of the principles of medicine, that the public has never demanded the restriction of practice, nor special qualifications for practitioners; that all legislation in this direction has been fostered by the medical profession from selfish motives. However, this is but partly true. The people have never made the urgent demand for legal restrictions governing the practice of medicine that their interests warranted, and what has been accomplished by the profession was prompted by higher motives than selfishness. We alone realize the necessity for some plan by which the innocent, the helpless and the misinformed, may be protected from contagion and infection. The first duty of the state is to care for the lives and health of its subjects, and as good citizens possessing special information, we cannot evade this duty.

Physicians worthy of their calling are not content with such knowledge as may barely permit them to be registered as practitioners, but they will continue as active students, adding to their information and skill

daily. Our Association and the county societies, whence it derives its membership and support, are most powerful factors in imparting post-graduate instruction, and if the character of our work shall continue to grow in interest and efficiency at the pace set in the last five years, it will be but a short time until the doctor in Missouri will be judged by the medical societies of which he is an active member rather than by the school from which he graduated.

If you will pardon my presumption, I will now speak of our relations with the public, which in my estimation, have been misunderstood to their detriment and our embarrassment. Results which may be accomplished in the future will depend quite as much on our avoiding mistakes as shown by past experience as it will upon the positive achievements of our body collectively, or as individuals. A false conception of what is expected of ethical doctors has led us "to hide our light under a bushel," thereby causing a feeling of indifference, if not resentment, toward a noble and unselfish profession. Sectarian medicine has been a great hindrance to progress by creating and fostering jealousy and factional bitterness in our ranks. This, like other excrescences on the body medical, has only been able to perpetuate itself where ignorance permitted misrepresentation as to what regular, scientific medicine stood for. The tendency is to drop special designations and to demand that each physician who attempts to treat the sick shall possess a knowledge of the principles of medicine and allow the utmost latitude to individual preference in the selection of remedies and dosage. The essential is that a doctor shall know enough to be a safe adviser; all others, of whatsoever class or name, who would treat the sick and afflicted are but parasites on the public and, as a rule, only receive recognition by the perverse or the "little" element who are out of joint with the world and are induced by self adulation to seek "new and strange gods." Dr. L. D. Wilson has most aptly expressed the truth in speaking of the lack of appreciation of the public as to our efforts to make better doctors of better men, when he said, "We have, up till now, submitted without protest or explanation to a most vicious and misleading characterization, on the part of the people in general, of our principles of ethics. Towards that which should constitute our highest claims to their respect, they have habitually assumed an attitude of supercilious levity, if not of contemptuous reprobation. But the quack doctor, the ignorant, pretentious charlatan who preys upon the wretched victims of incurable maladies, who robs the credulous by the baldest falsehoods, who tempts the innocent into vicious indulgences, has half the community trooping at his heels, and they sneer and jeer at us when we refuse to join in the senseless acclaim. * * * They take us into the privacy of their homes, they confide to us their most delicate secrets, they seek our aid in the most humiliating emergencies, yet they deride us when we promulgate that code of principles that assures them that we are worthy of these trusts."

The people must be educated for their own protection, and this task will have to be met by the medical profession, aided, let us hope, by the public press. Every county society should hold at least one meeting in each year to which the public may be invited. One or more papers should be read on the subject of medical ethics, setting forth clearly the relations that should exist between the physician and his patients, and the obligations due from the public to the profession. Another paper might deal with the tuberculosis problem, or some other subject in which the people are vitally interested. The local minister, lawyer, teacher, editor and merchant, should be placed on the program, to discuss these papers. In this way we may interest and educate the public to a proper conception of our position on questions which are vital to its interests.

Neither current nor past history has dealt justly with our profession. Our school children can name military heroes, statesmen, lawyers, ministers, merchants and manufacturers who have achieved fame, but how few have heard of physicians who have earned the plaudits of mankind by unselfish labors which led to the sacrifice of health and life itself in discovering the cause and means for the prevention of disease.

The cause and manner in which yellow fever is transmitted has been determined and the discovery proven true by practical demonstrations. For example, at New Orleans, in 1905, the only time that history records a successful effort to stamp out this disease without the assistance of "Jack Frost." By adopting the well known means to protect men from yellow fever and malaria, Dr. Gorgas has made it possible to build the Panama Canal. Drs. Reed, Carroll and Lazear, of our country, at the behest of the United States Government, made a study which settled the vital question of how yellow fever was conveyed from the infected to the non-immune, and sacrificed health and life in the work. They performed a service for the South not less than that which made General Jackson's name immortal, yet our government had to be prodded by the medical profession into a tardy and niggardly recognition of this invaluable service.

An undue modesty, in the past, has prevented much of our work becoming known and appreciated by the public, thereby depriving us of that recognition and credit which is so essential to the accomplishment of results commensurate with the great interests that are at stake.

The public press has never shown that kindly feeling and interest in the progress of our profession which a proper appreciation of its possibilities for good to the state warrant and demand. It is not because the editors and publishers of newspapers are indifferent to the interests of the people, but it is largely due to the fact that we have been too exclusive with our information and have thus failed to interest this most powerful factor in moulding public opinion. At our meeting last year, a program was carried out in which matters of vital import

to the public were ably discussed and plans formulated by which untold benefits will, in my estimation, accrue to the people of our state and beyond its confines. The reports of that meeting were so meagre in the metropolitan press that probably seventy-five per cent of the reading public were not apprised of its having been held, and if twenty-five per cent even observed that such a meeting was held, they had but little to impress them with the idea that anything of interest or value was done for the general public. If, instead of a meeting of the Missouri State Medical Association, this had been a convention of stockmen, attended by four hundred gentlemen of anything like equal intelligence of our members, spending two days in the discussion of tuberculosis or black leg in cattle, or cholera in swine, with a view to devise means for the prevention and cure of these diseases, few, if any, of the daily papers but would have had special representatives in attendance with instructions to make full reports of the proceedings. Verily, it would seem that man is of less import to the state than are the beasts of the field. It would be in the interest of our profession, and for the good of the people of our state, if we could arrange for a competent person to report for the press such of the proceedings of this Association as are of special importance to the public. I trust you will not misunderstand my position; no man deprecates more than I the advertising of individuals and their special interests; it is not men but measures, not individuals, but the profession as a body, that should be discussed in a way that the populace may be taught truly as to our objects and methods. It makes little difference as to who may hold the offices in this Association, but it is of vast import to the public as to what is being done by the Association, and what the opportunities are for securing results alike favorable to our mutual interests.

We are the natural guardians of public health, but this self-imposed duty is not appreciated by those whom we would protect, and is often misunderstood, if not resented. The medical profession has, time out of mind, been advising the public in general and special sanitary measures, with a view to protection from preventable diseases, but the masses do not appreciate nor accept advice until the hour of their distress, when it is often too late to preserve health or possibly to save life.

The special knowledge of the medical profession as to the value of legislation to protect the public from insanitary conditions is such as to entitle it to great influence in securing the enactment of suitable laws governing the manufacture and sale of food products, protecting sources of water supply, regulating quarantine, and many other acts of equal importance to public health. All safe and sane citizens concede this much and ought to see that our plans shall not miscarry for lack of consideration by legislators, nor through corrupt means supplied by selfish interests.

Physicians are usually held in high esteem as individuals by those whom they serve and by their associates in the professions, trades or

callings, but when they essay to do something in an organized capacity, their advice is too often received with suspicion and distrust. Those of you who have spent time and talent before legislative bodies in efforts to secure needed laws in the interest of the public, and incidentally the profession, will no doubt testify to the truth of this statement. If I am seemingly too pessimistic, my excuse is that I have had personal experience in this work which has convinced me of the necessity for reform, and we must first become very much displeased with existing conditions ere we will fight for a change. Dr. McCormack has well said that "the trouble in the past has been that laymen have always looked upon medicine as one of the occult sciences. Doctors, their methods, and everything concerning them, certainly in recent years, without intention, were kept in the realm of the weird, the mysterious, almost the supernatural, and hence they have always been easily misrepresented and constantly misunderstood."

My plea is that we shall become practical in our efforts to obtain legislative enactments correcting evils that have caused the sacrifice of many valuable lives, untold misery, and a loss to the state of fabulous sums of money in unnecessary expenses and in productive capacity caused by preventable diseases.

If more physicians could be induced to accept public offices our state would be greatly benefited by their experience and influence in legislative matters. Too many in our profession will neither seek nor accept service for the state, nor will they aid, as they should and might do, in placing the best men in office. We have members who would be an honor to any department of our national or state governments, men who are willing to make any reasonable sacrifice for public good, but having no taste for and little knowledge of practical politics, they shun a service in which they are so much needed. There is another class of physicians, which I am glad to say is growing less, who speak disparagingly of their professional brethren who may become active politically, even intimating that it is evidence of professional incompetency for a physician to take an active interest in politics or to accept a public office. The cloak of professional dignity will not protect from merited criticism one who neglects the plain duties of citizenship.

It becomes our duty to educate the public as to our desires and unselfish motives in seeking to legalize long known facts for the betterment of public sanitation and for protection against charlatans. We can only succeed in this laudable undertaking by commanding the confidence and respect of the people, and all our energies should be bent in this direction. They do not realize what has been done in their interest by the medical profession. In less than one-third of the life history of this Association the requirements for entrance and time necessary to complete the course of instruction demanded by the medical schools of our state has been more than quadrupled; while the demand is for still better work, for we admit that the physician is not all that he might

be, yet if his weakness must be derided by the press and the public, they should at least know and appreciate his elements of strength.

Let me appeal to each individual physician to live right, act honorably, showing a proper respect for the feelings and rights of every other doctor residing in his territory, defending the good name and unselfish work of the profession against the aspersions of the malicious and the uninformed, for the final judgment of the public as to our worthiness must be formed from observation as to the acts of individual members of the profession.

May we strive to merit the praise of Robert Louis Stevenson when he said: "The physician is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race."

THE EVERYDAY FIGHT ON CONSUMPTION.*

BY GEORGE HOMAN, M. D., ST. LOUIS.

The overthrow of consumption or tuberculosis as a disease that now endangers our entire population is a task in which almost every person past early childhood can have a share by voice or work, as by its nature this duty is an obligation resting upon all, and not solely on the medical profession or sanitary officials as many are only too prone to profess or believe.

This sense of responsibility should everywhere be pressed on the attention of individuals with ceaseless insistence by those who are in any manner vested with special knowledge, influence or authority over others, and while the leaders in this particular movement would naturally be physicians, still they should be closely followed by editors, clergymen, educators, parents and those active in clubs, associations and societies whose purposes are the social or sanitary betterment of their fellows.

Of all the fields of effort thus presented, there is none more promising than that afforded by school pupils, even those in primary grades, and it may be safely said that, given the cordial co-operation of parents and teachers in every school in the land, therein would be found the promise and potency of the overthrow of consumption as a population scourge, even within the allotted years of many grown persons now living; in fact, with such conditions the span of a single generation should see the practical disappearance from among us of a plague that now claims not less than one victim in every seven of all deaths throughout the civilized world.

The fact that this stubborn enemy is now everywhere present attests our sanitary sinfulness in the past, and makes emphatic the need for sound organization and watchful work in every community, large and small, and well-prepared accordingly for whatever development the disease may show, whether of home growth or importations from abroad.

And this situation demands a broad alert outlook by those who are placed on guard—not less so than in the case of pestilences that spread more swiftly, as the bubonic plague, yellow fever, smallpox, etc.—for while a community may be free from known tuberculosis to-day, a case may arrive to-morrow from a distant place, and in a condition fully capable of broadcasting the disease in every family. Such an incident, however, does not justify acts that would brand such an arriving person as a public enemy, but rather for the good of all he should be treated in a kindly manner and simply taught to observe the measures which science imperatively lays down in order to guard against the

*Address of the President read at the Second Annual Meeting of the Missouri State Association for the Control and Prevention of Tuberculosis, Springfield, Mo., May 20, 1908.

spread of the disease; and, as is generally known, the main requirement is that the spittings and excretions of a person consumptively diseased shall be destroyed forthwith to insure safety to others from infection.

As there is no mystery in such a proposition, the intelligence of the average school child can be appealed to with confidence to aid in preventive work, and the problem accordingly is reduced to the simplest possible form which may be stated in this wise: Whereas, it has been shown in certain communities where, during the last ten years, the indicated measures of precaution have been fairly well observed, that a real local decrease in the number of those sick of consumption, and of those dead of the same disease has been brought about, and which results were unknown before specific measures were employed,—what, therefore, must be the reasonable explanation of such a showing, and what must be the lesson that such an experience teaches? Plainly this, that with an extension of such knowledge and work into every community the same results would follow with almost the certainty of a mathematical demonstration.

That it is not a fool's paradise toward which we strive is proved by experiences had with other diseases which were once as grievous afflictions to the human race as tuberculosis is now, namely, typhus fever, scurvy, leprosy, smallpox, and others that could be named. The one first mentioned scourged cities, camps, prisons, and ships with fearful virulence; scurvy paralysed entire fleets and navies, while leprosy ravaged whole armies, but all of these have yielded to sanitary law and are now rarities even in the by-ways and dark places of civilization—a life-long medical experience very seldom affording opportunity to see a single case. One hundred years ago the fact that a person's face was *not* scarred by smallpox was used as a valuable mark of personal identification and mentioned in official descriptions, while to-day the opposite is the rule, the rare *presence* of such pitting is held as a means of identification and is always made use of when it exists—and this momentous change has been effected through applied biologic law, almost within the memory of some persons now living, and often in the face of fatuous or fanatical opposition.

In other widely spread diseases, too, noteworthy progress in their control has been made; indeed, everywhere scientific medicine is now confident in its knowledge respecting communicable maladies, and aggressive in its attitude toward them, and their complete conquest waits only on the provision of financial means adequate to the task indicated; but the degree and quality of our civilization, and the wisdom and fitness of human governments are well shown by the madness that would squander tens of millions of money in building battleships while begrudging a few thousands for the destruction of a disease that continually makes war in the prime of life upon the bone and sinew of our population.

If, as before pointed out, the generations now in school should be systematically taught in the intelligent prevention of consumption,

what forecast could in reason be made with respect to the present tuberculosis problem? One thing is certain at any rate, and that is it would no longer be a problem, but merely a question that was being steadily and surely answered; for the rising generation, being wiser than we, will command in no uncertain tone that their legislative and official servants shall place among the most important functions and duties the voting of money in ample amount to prevent the cruel, needless waste of human life that is now everywhere being wrought by preventable diseases; for everything worth having must be worked for and paid for, and in no other field of effort can richer returns be reaped by such outlays than in waging the fight to a finish against tuberculosis.

With such public spirit and knowledge everywhere in evidence and action, backed by public funds to support the work, it is a safe prediction that within five years there would be a plainly visible reduction in the mortality and sickness rates from tuberculosis, and every succeeding five-year period would show rapid gains in betterment until at the end of a single human generation losses from this cause probably would figure to no greater extent in civilized communities than do those from the nearly extinct or vanishing plagues before mentioned, which were once such scourges and terrors to the human race.

This, then, is the appointed work to which we as a body and as individuals are committed—shall it succeed or fail? The first year's life of this Association has, it is true, not shown the growth that was hoped for, but wide-reaching causes affecting business and financial conditions have hampered and delayed our progress. Notwithstanding this, the future is faced with confidence in the firm belief that seed sown in the past will yet spring up and the harvest show that such labors were not altogether in vain.

As for the work now at hand, organization where it is now lacking, must be urged, and all bodies spurred to renewed active effort, for it is an imperative duty that in every county in Missouri the candidates for seats in the General Assembly to be elected next November should be advised by their home people of what are the present needs in this warfare, so that they may proceed to their legislative labors with clear ideas as to the wishes and demands of their constituents, all to the end that the cough of the consumptive—the most distressing sound that can fall on human ears—shall no more be heard in the land; a victory of peaceful science, a momentous deliverance of the race, and a tribute to our better civilization that will stand unmatched for human progress and good by all the military wars of a century, and costing but the merest fraction of the enormous treasure that has been expended in bloody strife between armed nations.

In order to aid in such educational movements it has been the purpose of this Association to use exhibits showing in practical form the means and appliances employed in waging the war on tuberculosis, thus appealing to the mind through both eye and ear in the work of public

instruction, which method wherever employed has been found most useful and effective. Some work of this kind has been done in a few localities, but by no means so widely as is desirable, a controlling wish of the officials of this body having been that a railroad car might be suitably equipped for such a demonstration, and sent out on a missionary tour of the state, those in charge giving lectures and exhibitions at every point where local assurance was given that a sufficient gathering of people could be had to hear and co-operate in such efforts. Although appeals have been made to individuals and firms for funds for this purpose, no sufficient amounts have been forthcoming as yet to justify the hope that this invaluable aid to public teaching can be realized.

In this connection it is a pleasure to acknowledge the favor and encouragement extended by the State Board of Health, financial aid from which source being withheld only by reason of an administrative ruling against the expenditure of the Board's funds in this manner—an extension of the purpose in mind being by such co-operation to provide for an adequate Missouri exhibit at the International Congress on Tuberculosis at Washington, D. C., next September.

In conclusion sincere acknowledgement is made to the many who, in various ways, have helped onward this cause, the details of which will be presented by the secretary, Mr. R. J. Newton, whose intelligence and zeal amidst many difficulties have justified the highest commendation.

SECRETARY'S REPORT TO THE ANNUAL MEETING OF
THE MISSOURI STATE ASSOCIATION FOR THE
CONTROL AND PREVENTION OF TUBER-
CULOSIS, MAY 20th, 1908.

This Association was organized in May, 1907, by the Committee on Tuberculosis of the Missouri State Medical Association, assisted by members of the St. Louis Society for the Relief and Prevention of Tuberculosis.

The first meeting of the Association was held on May 15th, 1907, in the House of Representatives, State Capitol Building, Jefferson City, Missouri, following a meeting of the State Medical Association.

The purposes of the Association, as stated in Article III of the Articles of Association are:

Dissemination of knowledge concerning the cause, treatment and prevention of tuberculosis in Missouri.

Investigation of the prevalence of Tuberculosis in the state, and the collection and publishing of useful information.

Securing of the proper legislation for the relief and prevention of tuberculosis.

Co-operation with the public authorities (state and local boards of health), the National Association for the Study and Prevention of Tuberculosis, medical societies and other organizations in approved measures adopted for the prevention of the disease.

Promotion of the organization and work of local societies in all parts of the state; encouragement of adequate provision for consumptives by the establishment of sanatoria, hospitals, dispensaries and otherwise.

In general, to do all things and acts having as their object the relief of those afflicted with tuberculosis and the control and prevention of that disease throughout the entire state.

During the past year the following counties have been organized: Cape Girardeau County, Cole County, Gasconade County, Greene County, Howard County, Moniteau County, Ralls County, Jackson County, Bates County.

Counting the St. Louis Society and the State Association there are now eleven Anti-Tuberculosis Associations in Missouri. A year ago there was only one.

In all of these places meetings were held, addressed by lecturers sent out by the State Association. At most of these places the lecture was illustrated with stereopticon pictures.

Meetings have also been held at the following places: Fredericktown, Madison County; Bonne Terre and Flat River, St. Francois County; Mt. Vernon, St. Lawrence County; Kearney, Clay County; St. Joseph, Buchanan County.

At all of these places we hope to effect organization later.

We have been working to secure a Traveling Tuberculosis Exhibit to be shown in a railway car all over the state. This will enable us to reach thousands of people, at very small expense, with information about the disease and its prevention. An effort was made to secure funds from the State Board of Health for this purpose; while the Board was willing, the State Auditor felt compelled to refuse to honor their warrant.

An effort was made to interest the Shoe Manufacturers' Association of St. Louis in this plan without success.

We have been working securing subscriptions to a fund of \$1000.00 to pay for the expense of preparing such an exhibit and we have secured \$225.00 of that amount. We will continue our efforts and hope to start the exhibit on the road this fall.

In the small places the people will be invited to come to the car; while in the larger places the exhibit will be moved to some church or hall. At every place stereopticon lectures will be given and literature distributed. In every place it will be shown under the auspices of the medical societies or the anti-tuberculosis societies.

The St. Louis Society has a small but very complete exhibit which has been studied by thousands of people during the past winter.

At the next session of the Legislature measures for the prevention of tuberculosis will be introduced by this Association and the earnest support of all members is solicited.

The total receipts of the Association to May 15th are \$456.01, of this amount \$393.26 has been disbursed, leaving a balance of \$62.30, and our liabilities amount to about \$500.00.

Very little has been done in the way of circulating literature by the Association. We expected to be able to distribute the pamphlet to be published by the Missouri State Medical Association containing the papers read in Jefferson City in 1907. We have sent to all of the newspapers, from time to time, articles about the Association work and about tuberculosis, many of which have been published in the papers throughout the state.

Requests have come to us from many places for copies of our by-laws and information as to our plan of organization.

We are corresponding with persons in nineteen counties preparatory to organization. These counties are: Adair County, Bates County, Barton County, Boone County, Franklin County, Daviess County, Johnson County, Laclede County, Lafayette County, Linn County, Nodaway County, Pettis County, Platte County, Schuyler County, St. Clair County, St. Louis County, Saline County, Scotland County, Stoddard County.

Our work has been difficult because it has been hampered by lack of funds. The Association was organized early in the summer and we were unable to secure money in St. Louis because many of the people whom we wished to appeal to were out of the city, and later on in the fall the financial difficulty prevented us securing the necessary financial assistance.

The fourth annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held in Chicago, June 5th and 6th, at the Auditorium Hotel, and it is hoped that Missouri will be well represented.

A strong effort is being made to secure a large delegation from Missouri to the International Congress, which meets in Washington, D. C., September 21st to October 12th.

The Missouri Committee of the International Congress, of which Dr. W. E. Fischel is chairman, and Dr. Louis M. Warfield is secretary, is planning for Missouri's representation at the congress.

Respectfully submitted,

R. J. NEWTON,
Secretary.

Journal

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ADDRESS ALL COMMUNICATIONS TO METROPOLITAN BUILDING, ST. LOUIS, MO.

Volume IV.

JUNE, 1908.

Number 12

E. J. GOODWIN, M. D., Editor.

PUBLICATION COMMITTEE:

Walter B. Dorsett, Chairman.

M. B. Clopton,

M. C. Shelton.

EDITORIAL

THE SPRINGFIELD MEETING.

The Fifty-first Annual Meeting of the State Association will long live in the history of the Association as marking a definite period between the old and the new. From every standpoint the Springfield meeting may be regarded as the record breaker. The number of members present far exceeded the attendance at any previous meeting, and the percentage of scientific papers read was higher than at any other meeting. The business affairs of the Association were dispatched with promptness and satisfaction so that the meetings of the House of Delegates and Council caused a minimum of interference with the work of the sections. Dr. Allee presided at all meetings and proved himself equal to every emergency; his rulings were correct and just in all instances. In his message to the House of Delegates, the President recommended, among other things, that the scheme of legal defense of members against civil malpractice suits be given thoughtful consideration and provisions established for extending such assistance to members if it was found practicable to do so at this time. His recommendations were acted upon and a fund of \$500.00 was set aside to be used for this purpose during the next fiscal year. This manner of defending members of state medical organizations has been the subject of discussion for some time. It was favored by the members almost without exception, and has been successfully prosecuted by other state associations for several years. This plan of protecting the members of the Association should be a strong argu-

ment for inducing eligible physicians, not now members of county societies, to join the local societies at once, and the secretaries and councilors should not delay in making a canvass of the counties with the view of bringing in these desirable non-members. Our membership now is much larger than at any previous time, but there are about one thousand eligible physicians in the State who should be numbered among the active workers in medical organization. Looking back over the progress of the Association's work during the past year, we can say that the administration of Dr. Allee was a most successful one. We have passed the stage of experiment in medical organization and each annual gathering in the future should show a respectable array of measures successfully carried out and the broadening of our sphere of influence for good. Dr. Kieffer, the new president, takes his office at a most opportune time for encouraging the growth and directing the work of the organized medical profession into channels which shall carry its influence into those higher and broader fields that the great achievements of our science have opened to us.

The scientific work of the Association will be divided into three sections in future. A new section devoted to the eye, ear, nose and throat was authorized upon a petition from the specialists in these diseases. This division will enable those interested primarily in the special field to read and discuss a larger number of papers devoted to their subjects than has been possible hitherto.

OFFICERS FOR 1908-1909.

President, A. R. Kieffer, St. Louis; first vice-president, D. B. Farnsworth, Springfield; second vice-president, W. J. Frick, Kansas City; third vice-president, J. B. Norman, California; fourth vice-president, C. H. Dixon, Holliday; fifth vice-president, M. A. Smith, Gallatin; secretary, A. W. McAlester, Jr., Kansas City; treasurer, J. F. Welch, Salisbury.

Officers of Sections: Medical Section: Chairman, W. L. Gillmore, Gallatin; secretary, W. R. Patterson, Tipton. Surgical Section: Chairman, Paul Y. Tupper, St. Louis; secretary, Willard Bartlett, St. Louis. The Section on Eye, Ear, Nose and Throat: Chairman, J. H. Thompson, Kansas City; secretary, T. McLemore, Nevada.

Orators: Oration on Medicine: R. H. Goodier, Hannibal; Oration on Surgery: F. J. Lutz, St. Louis.

MEETING OF THE COUNTY SECRETARIES.

An enthusiastic meeting of the Secretaries and Councilors of the various counties was held on Tuesday, at the Springfield Club, at which time the permanent organization was perfected, by-laws and constitution

adopted, officers elected, and the new society launched under the most auspicious circumstances. An experience meeting was held later in the evening, while the members were gathered around the banquet board at the club, President Allee being seated at the head of the table. Among those responding were Drs. Tinsley Brown, W. T. Elam, H. S. Majors, Woodson Moss, F. J. Lutz, and others.

The officers elected for the first year are as follows: President, Dr. Foster W. Burke, Laclede; first vice-president, Dr. M. A. Smith, Galatin; second vice-president, Dr. E. N. Chastain, Rich Hill; secretary-treasurer, Dr. Chas. Wood Fassett, St. Joseph; executive committee: Drs. R. M. James, Joplin; H. S. Majors, Hardin; W. R. Patterson, Tipton; Tinsley Brown, Hamilton; D. L. Mitchell, Cassville.

ASSOCIATION OF STATE SECRETARIES AND EDITORS OF STATE JOURNALS.

About fifty of the secretaries of state associations and editors of state association journals met in the Victoria Hotel, Chicago, on the evening of June 1st and effected permanent organization. The members gathered around the dinner table and elected Dr. George H. Simmons temporary chairman and Dr. E. J. Goodwin temporary secretary. Dr. Walter Cheyne, chairman of the committee on organization, reported for that committee. He said there was a unanimous sentiment among the secretaries and editors favoring the organization and he believed very much would be accomplished by this body in furthering the objects of the American Medical Association. A number of the gentlemen spoke of the work that this Association should undertake, and plans were advanced for making the Association one of the most effective working branches of the American Medical Association. Dr. Walter Cheyne, of South Carolina, was elected chairman for the ensuing year, and Dr. L. H. South, of Kentucky, secretary. Two committees were named whose duties are to outline plans for making the work of the Association productive of the greatest good to all. These committees are, a committee of editors and a committee of secretaries. The committee of secretaries is composed of Dr. A. W. McAlester, Jr., chairman, Missouri; Dr. Wisner R. Townsend, New York; Dr. Thomas S. McDavitt, Minnesota. The committee of editors, Dr. E. J. Goodwin, chairman, Missouri; Dr. I. C. Chase, Texas; Dr. A. T. McCormack, Kentucky.

THE CHICAGO MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The Chicago meeting of the American Medical Association more than fulfilled the highest expectations of attendance and interest. The total number of members who registered greatly exceeded the large

number who attended the Boston meeting in 1906, when the record of 4722 was established. At Chicago something over 6300 members registered. This outpouring of members at the annual gathering spells success for medical organization. The spirit of fraternalism was never more pronounced and good fellowship abounded everywhere. The section meetings were all largely attended—it being necessary at one session of the surgical section to turn away a great many. The numerous alumni dinners added greatly to the interest of the meeting. The business affairs were conducted in a quiet and dignified manner and all matters were disposed of promptly and in a business-like way.

THE WORK OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS.

With the time for the meeting of the International Congress on Tuberculosis drawing near, the National Association for the Study and Prevention of Tuberculosis is bending all energies to stimulate a wide interest in this most important branch of preventive medicine. For the purposes of education and instruction, the Traveling Exhibit has been shown in many cities throughout the country during the past three years. Thus far the exhibit has been as far south as San Antonio, Texas, and as far north as St. Paul, Minnesota.

The campaign this spring has been planned with the view of bringing the Southern States into line.

To one seeing this exhibit for the first time, it is a revelation of the modern methods of reaching the masses of the people.

The exhibit consists of charts and photographs touching upon every phase of the problem of the prevention and treatment of tuberculosis. Besides the general information and tables of statistics from the whole country and also from foreign countries, there are pictures of the various state and municipal and semi-private sanatoria, with the rules and regulations for patients. Practically all the special dispensaries are represented. There are models of tents, window tents, reclining chairs, model sick rooms and dirty tenement rooms. There are a number of models of sleeping pavilions and shacks. The director of the exhibit, Mr. Routzahn, is indefatigable in his efforts to make it a success. He has several hundred lantern slides showing conditions in cities all over the country. There are also slides of sanatorium views, model tenement houses, incidents in the work of the nurses, and many colored views of ideal places in various parts of the country. Much literature in the form of small pamphlets is distributed broadcast. As long as the exhibit is in a city, the director, every hour or two, gives a short lantern slide lecture.

The effort is made to interest all business organizations, schools, trades-unions, etc., by inviting them at special hours, when an appropriate program is given. There is a different chairman for every meeting. These meetings are held usually twice daily. Doctors and laymen address these meetings and wide interest is aroused among all classes of people. An effort is always made to induce prominent physicians from other cities to address the meetings.

The material in the exhibit has accumulated to such an extent that it takes a large hall to accomodate it, and the array of facts massed together is most impressive. There can be little doubt that the dissemination of knowledge by such an eminently practical means not only reaches the thousands who actually see it, but other thousands who are told about it.

While the Kentucky legislature was in session and a bill was being considered, having for its object the erection of a State Sanatorium, the exhibit was placed in Lexington and every effort was made to bring pressure to bear on the members of the two houses.

Such methods consistently pursued cannot but be productive of much good. Not only laymen but doctors need to be taught much about the prevention of tuberculosis. None of us knows so much that it becomes unnecessary for some one who knows more to instruct him. It were indeed well that all the profession followed with some care this great movement.

The work of the National Association has crystallized into an easily assimilable form, a vast amount of facts concerning this greatest of modern plagues.

To make the International Congress a complete success, all who can are urged to become members. Then let every member go. It will be a gathering that will long be remembered and undoubtedly will be the means of arousing our National Government to take active steps in the suppression and control of tuberculosis among human beings, even as the Government prevents and controls scabies in sheep, Texas fever in cattle, and boll-weevil destruction of cotton.

IN MEMORIAM.

JOHN WESLEY TRADER, M. D.

The committee appointed to draft resolutions on the death of Dr. J. W. Trader, reported as follows:

Doctor John W. Trader died at his home in Sedalia, Missouri, May 16, 1907, at the closing hours of our last meeting.

His father moved from North Carolina to near Xenia, Ohio, where the subject of our sketch was born March 6, 1837. A few years later his parents moved to near Brunswick, Missouri, and four years afterwards moved to Linn county, Missouri. The subject of our sketch was three years old when he came to Missouri; hence we can proudly claim him as a Missourian.

He received his literary education from private and public schools; his medical education from the McDowell Medical College, St. Louis, Missouri, which afterwards became a part of Washington University. He graduated from there in 1860 and in 1867 attended lectures in Europe.

He began the practice of medicine in 1860 in Putnam County, Missouri. After the war for a short time he practiced at Lexington, Missouri, and later moved to Sedalia, when it was a small town and remained there until his death.

He descended from a patriotic family who settled in North Carolina in the early colonial history of our country. At the beginning of the war with England they all espoused the cause of freedom and many of them offered up their lives in defense of their homes and liberty which we now enjoy.

The same patriotic blood flowed in the veins of our departed brother, who at the first sound of war between the states, espoused the cause of the Union and enlisted in the Union Army and was elected captain of a company by those who knew his brave and chivalrous manhood. Later, because of his high qualifications as a surgeon and his thorough medical knowledge, he was transferred to the Medical Department and promoted to Brigade Surgeon. He served with distinction to the close of the war when it was recognized that the Government could not do without his valuable services and he was solicited to remain longer, which he did for several years.

He occupied many places of great responsibility in this, one of the most valuable Departments of the Army.

Those of us who knew him well can easily recognize his great value as an Army Surgeon because of his thorough competency, conscientious discharge of duty and the large stream of the milk of human kindness which flowed through his veins.

Dr. Trader's mind was logical and analytical; hence he was a close observer and investigator, accepting only truth which he loved for truth's sake.

He was an omniverous reader, and from his large and varied accumulation of knowledge he built up a strong and vigorous intellectuality based on facts. He was devoid of vanity and self conceit. Our Society did honor to itself when it selected him as its President.

He had two very prominent characteristics in his composition: one a strong religious conviction of the great truths in the Bible, which gave him all the attributes of a Christian gentleman, which means much; next, charity, the greatest of all virtues. In him it touched all of his environments of life.

The high esteem that Doctor John Wesley Trader was held by those who knew him is accentuated by the high compliments paid him by the local press, the *Sedalia Democrat-Sentinel*, and many telegrams received.

We have no means by which we can estimate the great value that Doctor Trader has been to his church, his country and his profession. Indeed he should be pointed to as an example for all men.

Resolved, that the Missouri State Medical Association in the death of Doctor John W. Trader has lost one of its most ethical and scientific members, who was an earnest worker for higher medical education and public health, and the State a splendid citizen.

Resolved, that a page in the minutes of the Missouri State Medical Association be set aside to his memory, and on which page shall be inscribed these resolutions and the report of the committee.

Resolved, that we sincerely extend to his family our sympathy and condolence in their great bereavement, and that a copy of this report be sent to them.

JOHN M. ALLEN,
W. J. FERGUSON,
J. E. TEFFT,
Committee.

May 18th, 1908.

MINUTES OF THE FIFTY-FIRST ANNUAL MEETING, MISSOURI STATE MEDICAL ASSOCIATION, SPRINGFIELD, MAY 19, 20, 21, 1908.

MINUTES OF THE HOUSE OF DELEGATES.
COLONIAL HOTEL.

FIRST DAY—Tuesday, May 19th.

MORNING SESSION.

The House was called to order at 9:40 a. m., the President, Dr. Allee, in the chair.

Roll call of delegates showed the following members present:

COUNTY.	DELEGATE.	COUNTY.	DELEGATE.
Adair.....	James Hanks.	Lawrence-Stone....	A. H. Madry.
Audrain.....	R. W. Berrey.	Linn.....	F. W. Burke.
Barry.....	A. S. Hawkins.	Livingston.....	W. L. White.
Barton.....	T. H. Duckett.	Madison.....	F. R. Newberry.
Bates.....	H. A. Rhodes.	Marion.....	Robt. H. Goodier.
Benton.....	E. L. Rhodes.	Mercer.....	C. R. Buren.
Boone.....	A. R. McComas.	Miller.....	Frank DeVilbiss.
Buchanan.....	{ L. A. Todd.	Moniteau.....	W. R. Patterson.
	{ W. T. Elam.	Monroe.....	W. B. A. McNutt.
Caldwell.....	W. T. Lindley.	Nodaway.....	E. L. Crowson.
Callaway.....	P. E. Williams.	Pettis.....	H. B. Cole.
Cape Girardeau..	D. H. Hope.	Phelps.....	W. H. Breuer.
Carroll.....	L. Samuels.	Platte.....	A. S. Herndon.
Carter-Shannon..	William Fulton.	Polk.....	J. E. Loafman.
Cass.....	A. R. Elder.	Pulaski.....	E. A. Oliver.
Chariton.....	C. H. Temple.	Ray.....	H. S. Major.
Christian.....	J. W. Bruton.	Ripley.....	J. T. Redwine.
Clay.....	E. H. Miller.	Saline.....	Wm. Harrison.
Clinton.....	J. A. Franklin.	St. Clair.....	W. E. Bell.
Cole.....	J. L. Thorpe.	St. Francis.....	A. L. Evans.
Davies.....	Wm. L. Brosius.		J. M. Ball.
Franklin.....	A. C. Brown.		Carl Barch.
Gas. Maries-Osage.	J. D. Seba.		Geo. W. Cale, Jr.
Gentry.....	J. W. Conard.		M. B. Clopton.
Greene.....	C. E. Fulton.	St. Louis.....	W. S. Deutsch.
Grundy.....	D. W. Coon.		Davis Forster.
Holt.....	B. T. Quigley.		R. M. Funkhouser.
Howard.....	W. S. Thompson.		Joseph Grindon.
Howell.....	J. W. Bingham.		W. W. Graves.
	Eugene Carbaugh.		Roland Hill.
	A. H. Cordier.	St. Louis County..	R. W. Mills.
Jackson.....	C. Lester Hall.	Scotland.....	F. G. Foster.
	Jabez N. Jackson.	Shelby.....	Wm. Carson.
	J. P. Kanoky.	Stoddard.....	Edward Moore.
	R. T. Sloan.	Taney.....	C. W. Burdett.
Jasper.....	L. I. Matthews.	Vernon.....	G. W. Robinson.
Jefferson.....	A. H. Hamel.	Webster.....	E. M. Bailey.
Johnson.....	M. P. Shy.	Worth.....	E. P. Nesbitt.
Laclede.....	James McComb.		

Dr. Coffelt, Springfield, reported for the Committee on Arrangements.

On motion the reading of the minutes of the previous meeting was dispensed with, the minutes having been published in the June, 1907, number of the JOURNAL.

The President read his message, as follows:

To the House of Delegates of Missouri State Medical Association:

If you will pardon me, and not consider it presumptuous, I would like to recommend to your favorable consideration the changes in the Constitution and By-Laws as recommended by your committee whose report will be submitted in due form.

Art. 7, Sec. 2, of the Constitution, authorizes the House of Delegates to fix the time and place for holding the annual meeting. The custom has been to hold this meeting in May. It has been suggested that this is too near the date of meeting of the American Medical Association, that it gives so little time for our delegates to the National Association to consider and prepare for the discharge of their duties; also that it is inconvenient for many of the members of this Association to attend our meeting and go, so soon afterward, to a meeting of the National Association. I am inclined to the opinion that it would be better for all interests if we could change the date of our meeting to November. I will ask that you consider this change and use your best judgment.

In spite of all efforts, there are several counties in our state yet unorganized, and few of the counties that have good working societies can boast that they have all the material that is eligible, in their membership. If we can appeal to the selfishness of those yet out of the fold, by giving them something more tangible for their money, I feel that it will help to solve the problem as to how we are to make every reputable doctor in the state a member of the county society and a member of this Association.

I recommend for your consideration that some plan may be sought by which the expense and other evils arising from malpractice suits against our members may, to a great extent, be eliminated.

If, in your judgment, it is feasible to fee an attorney for this Association, whose duties, in part, would be to advise and in other ways assist, our individual members who may be so unfortunate as to have malpractice suits filed against them, it will, in my judgment, bring about a decided increase in our membership and be of very great assistance to worthy members. New York, Pennsylvania, Illinois, Ohio, Iowa, Kentucky and many other state associations are either giving this assistance or have it under advisement.

Drs. Goodwin and McAlester have very kindly taken this matter up with the different state secretaries and editors and will have some information for your guidance if you care to investigate plans. I will not take your time to present such information, but would suggest that, if you think favorably of the subject, you have a committee to look up the evidence and present it in shape for action.

It is the opinion of well informed physicians that at least seventy-five per cent of all malpractice suits are the result of criticism, by jealous doctors, of the attendant with a desire to injure his reputation. We can largely eliminate this by having it understood that the State Association will defend the good name and reputation of its members. This alone would probably cut out more than one-half of all these suits.

I have letters from the Committee on Organization of Association of State Secretaries and Editors, asking that I should recommend to the House of Delegates that the expenses of our Secretary and Editor of the JOURNAL, be paid by this Association to attend a meeting in Chicago, on June 1st, 1908. I hope you may be able to grant this favor to the officials named. It needs no argument to prove that these two officials can render the Association service that is invaluable. Ex-

perience, whether acquired in the line of duty, or whether from the combined experience of men in similar stations, adds very greatly to their capability for good.

It ought to be a well fixed policy to elect competent men to these stations and then keep them there during good behavior or so long as they give satisfactory results.

The Committee on Organization of the International Association for the Control of Tuberculosis will ask assistance of this Association to aid in spreading an educational campaign for the purpose of limiting the ravages from this disease. I hope our finances will permit of your granting a reasonable sum of money toward this object.

The Committee on Public Policy and Legislation could do much more effective work if it had a fund to draw upon for the purpose of defraying necessary expenses incurred in the prosecution of matters looking toward the improvement of the public health. If it is found compatible with the financial condition of the Association, I would recommend that a reasonable sum be set aside for the use of this committee.

Dr. Hamel moved that the suggestions made by Dr. Allee be presented to the Committee on Amendments to the Constitution and By-Laws, and that the Chairman of the Judicial Council and the Treasurer of the State Association be added to this committee.

Seconded by Dr. Seba and carried.

The Chair appointed Dr. Overholser of Harrisonville to fill the vacancy occasioned by the absence of Dr. Hiller on this committee.

Dr. Jackson, Kansas City, called attention to the fact that all matters pertaining to the expenditure of funds must, according to the By-Laws, be referred to the Judicial Council.

The Chair ruled that the point was well taken and referred to the Council the suggestions in his message bearing on the expenditure of funds.

Dr. Lutz, Chairman of the Judicial Council, presented the report of that body. (See page 792.)

On motion the report was received.

The report of the Committee on Medical Education, Dr. N. B. Carson, Chairman, was read by Dr. E. J. Goodwin in the absence of Dr. Carson.

Moved to receive the report of the Committee on Education. Seconded and carried.

Report of the Committee on Scientific Work was read by the Chairman, Dr. T. F. Lockwood. (See page 799.)

Moved and seconded that the report be adopted.

Dr. Jackson moved that the items of expense be referred to the Council.

Dr. Lutz called the attention of the House to the fact that the Council could not appropriate money; it could only sign the order for money which the House had ordered to be paid.

Dr. Herman E. Pearse offered as an amendment to the motion that the Judicial Council be instructed to pay the items of expense of the secretaries of the sections. Seconded and carried.

Dr. H. E. Pearse made a verbal report of the Committee on Public Policy and Legislation, and Dr. Lutz presented the following in connection with Dr. Pearse's report:

As the representative of the state of Missouri at the annual conference of the Committee on Medical Legislation of the American Medical Association, I had the pleasure of being associated with Dr. H. E. Pearse of this state, and attended the meetings which were held in the city of Chicago, on the 10th and 11th of December, a report of which you have, no doubt, seen in the *Journal* of the American Medical Association.

I wish to thank the members of the Council and the members of the Auxiliary Legislative Committee in the various counties for the valuable assistance which they lent in bringing to the attention of Congress the Carroll-Lazear and the Hammond Pension Bills.

Perhaps nothing impressed one so much at this meeting as the unanimity which prevailed concerning the desirability of uniform legislation in regard to medical matters in the various states; the wisdom of continuing the work under established state laws until some tangible results had been obtained and palpable defects learned in existing state laws. And finally the unanimity with which the conference endorsed the establishment of a health bureau or secretaryship for the nation. For many years the American Medical Association has endorsed this plan, but only within very recent years have the medical men of this country come to agree with those who from the first, urged that, besides the education of the masses, it is necessary that medical men be placed in positions where they can influence directly the enactment of laws. One of the initial steps toward accomplishing this was taken at the meeting of the conference by the adoption of a resolution, which it was my privilege to present, according to which a committee of one member from each state composed of medical men and laymen was to be appointed by the Chairman of the Legislative Committee which was to take into consideration the broad field of uniform legislation in all matters appertaining to the sociologic conditions of our country, and the copy of which you will find printed in the Bulletin of the State Board of Health of our state, as well as in the *Journal* of the American Medical Association.

Another important factor, I take it, in bringing about the much desired and very necessary establishment of governmental centers for public health matters is the participation on the part of the medical men in the councils of the nation as Representatives and Senators. It will be some time before our country will have, numerically, the number of representatives in the House and in the Senate of the United States as sit in the national assemblies of England, France, Italy or Germany, but a very good beginning has been made. Everywhere throughout the Union, physicians are discussing the questions of civic duty on the part of doctors. In our own state the President of our Association has assumed the duty of aspiring to represent his district in the State Senate. And the Chairman of the Legislative Committee of the American Medical Association, Dr. Charles A. L. Reed of Cincinnati, has actively entered the arena as an aspirant for the senatorial toga of the state of Ohio. These are examples for our admiration and they should be encouraged.

The conferences of the Committee on Legislation of the American Medical Association are of such importance that our state should be always represented, not only by the official member of this committee, but also by a representative of the state Committee on Legislation. The

subjects discussed at these conferences all have a most important bearing upon legislative matters and furnish an opportunity for an exchange of views which cannot be done as effectively any other way.

On motion the report of the committee was received.

Dr. Lutz thought that the House of Delegates as well as the whole Association should endorse the candidacy of their chosen representative.

Dr. Lutz moved that a telegram of congratulation from the State Association be sent to Dr. C. A. L. Reed, urging the profession in Ohio to give him their earnest and active support. Seconded and carried.

Moved, by Dr. Newberry, seconded and carried, that the Association endorse the candidacy of Dr. Allee for the Senate.

Dr. Allee expressed his hearty appreciation of the action of the House.

The Secretary announced that the following message had been sent to Dr. Charles A. L. Reed of Cincinnati, Ohio:

The Missouri State Medical Association congratulates you and the medical profession of Ohio upon your patriotic action in becoming a candidate for the United States Senate.

We urge our professional brethren to give you their enthusiastic support. May victory crown your efforts.

A. W. McALESTER, JR., Secretary.

On motion the House adjourned until 1:30 p. m.

HOUSE OF DELEGATES.

AFTERNOON SESSION.

The House was called to order at 1:45 p. m., President Allee in the chair.

Dr. W. B. Dorsett presented the report of the Publication Committee, which, on motion was referred to the Judicial Council. (See page 797.)

The report of the delegates to the American Medical Association was read by Dr. Franklin E. Murphy. (See page 800.)

On motion the report was received and ordered spread on the minutes.

The report of the Secretary was read by Dr. McAlester. (See page 796.)

On motion the Secretary's report was received and adopted.

The House proceeded to the election of a Committee on Nominations.

The following were nominated: A. H. Hamel, 25th District; J. B. Norman, 18th District; C. E. Fronk, 1st District; J. N. Jackson, 13th District; E. H. Miller, 12th District; J. McComb, 26th District; R. M. Funkhouser, 20th District; C. Lester Hall, 13th District; F. W. Burke, 11th District; F. J. Harrison, 25th District; C. E. Fulton, 28th District; W. R. Patterson, 18th District; L. W. Dallas, 7th District; C. L. Evans,

1st District; E. P. Nesbit, 3d District; M. P. Overholser, 15th District; John D. Seba, 19th District; J. R. Buchanan, 16th District.

Dr. Moss moved to nominate candidates from each district at a time.

Dr. W. B. Dorsett moved that the number of each district be called and nominations be called for, and that the ten men be elected from those receiving the highest number of votes.

Moved by Dr. Goodier to elect by ballot.

Moved by Dr. Moss to appoint a committee to pass on the names.

Dr. Ball suggested that three districts be called and nominations made, then three more be called, etc.

Dr. Norman asked that his name be withdrawn.

Dr. Jackson, from the 13th district, withdrew.

Dr. De Vilbiss moved that the tellers take the ballot, count and report. Seconded and carried.

The Chair appointed Drs. Williams, Grindon and Dorsett to take the ballot.

While the ballot was being counted the House proceeded to the election of delegates to the American Medical Association.

The following nominations were presented: Dr. C. Lester Hall, Kansas City; Dr. George W. Cale, St. Louis; Dr. R. L. Goodier, Hannibal; Dr. Frank De Vilbiss, Eugene; Dr. J. D. Griffith, Kansas City; Dr. O. B. Campbell, St. Joseph.

Dr. H. E. Pearse, Kansas City, was nominated, but withdrew his name. Dr. G. W. Whitely, Albany, was nominated, but withdrew. On motion the nominations closed.

Dr. F. J. Lutz presented the following resolution:

Resolved, that the delegates be asked to pledge themselves to attend the meeting of the American Medical Association.

On motion the resolution was adopted.

The Chair appointed Drs. Pearse, Woods and Harrison tellers to take and count the ballot.

Moved, seconded and carried that the tellers after taking the ballot retire to count same.

Dr. Moss said that it was a violation of the By-Laws to elect the delegates until the second day, for the By-Laws stated that the officers of the society should be elected on that day. A delegate was certainly an officer.

Dr. Hamel thought Dr. Moss had been quoting from a synopsis of the amendments to be adopted at this meeting.

Dr. Elam said it was manifestly unnecessary for men who visited the Association for the scientific work, to be present at the meeting of the House of Delegates. If a man was present at any time during the session he should be eligible.

Dr. Lutz said that if a delegate was an officer of the State Association, then the House of Delegates was the place where he ought to be quite as much as the scientific sections.

Dr. Elam said he knew Dr. Campbell had intended to be present.

While the ballot was being counted, the Committee on Amendments to the Constitution and By-Laws reported as follows:

Your Committee on Revision recommends the following amendments to the Constitution and By-Laws:

Article 8.—Officers.

Section 1. The officers of this Association shall be a President, five Vice-Presidents, a Secretary, a Treasurer and sixteen Councilors.

Shall be changed to read:

Section 1. The officers of this Association shall be a President, five Vice-Presidents, a Secretary, a Treasurer, a Chairman and Vice-Chairman of each section, a Secretary of each section who shall be an Assistant Secretary of the Association, and twenty-nine Councilors more or less, as shall be determined by the House of Delegates from time to time.

Section 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretaries and the Treasurer shall be elected by the Council at its annual meeting and each shall hold office for one year. The Councilors shall be elected for terms of five years each, being so divided that four shall be elected each year. All of these officers shall serve until their successors are elected and installed.

Shall be changed to read:

Section 2. The President and Vice Presidents shall be elected for a term of one year. The Secretary and the Treasurer shall be elected by the Council at its annual meeting and each shall hold his office for one year. The Councilors shall be elected for terms of five years each, being so divided that one-fourth of the number shall be elected each year. Section officers shall be elected by the members registered in the Section and shall serve for a term of one year each. All these officers shall serve until their successors are elected and installed.

Section 3. The officers, except the President, Secretaries and Treasurer, shall be elected by the House of Delegates on the morning of the last day of the annual session, but no Delegate shall be eligible to any office named in the preceding section except that of Councilor, and no person shall be elected to any office who is not in attendance on that annual session and who has not been a member of the Association for the past two years.

Shall be changed to read:

Section 3. The Vice-Presidents, Councilors and Members of the Committee on Public Policy and Legislation shall be elected by the House of Delegates on the morning of the last day of the annual session, but no Delegate shall be eligible to any office named in the preceding section except that of Councilor, Chairman, Vice-Chairman or Secretary of a section; and no person shall be elected to any office who is not in attendance on that annual session and who has not been a member of the Association for the past two years.

Section 4. The President shall be elected by the General Assembly on the last day of the meeting.

Shall be changed to read:

Section 4. The President and the Orators shall be elected by the General Assembly on the morning of the last day of the meeting.

AMENDMENTS TO THE BY-LAWS.

Chapter V.—Election of Officers.

Section 2. The House of Delegates on the first day of the annual session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same councilor district. It shall be the duty of this committee to consult with the members of the Association and to hold one or more meetings at which the best interests of the Association and of the profession of the state for the ensuing year shall be carefully considered. The committee shall report the result of its deliberations to the House of Delegates in the shape of a ticket containing the name of one member for each of the offices to be filled at that annual session.

Shall be changed to read:

Section 2. The President on the first day of the annual session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same councilor district. It shall be the duty of this committee to consult with the members of the Association and to hold one or more meetings at which the best interests of the Association and of the profession of the state for the ensuing year shall be carefully considered. The committee shall report the result of its deliberations to the House of Delegates in the shape of a ticket containing the name of one member for each of the offices to be filled by the House of Delegates at that annual session.

Add a new section to be known as Section 6, as follows:

Section 6. Nominations for President and Orators shall be made in the General Assembly on the morning of the last day of the annual meeting.

Chapter VIII.—Committees and Sections.

Add a new section to be known as Section 6, as follows:

Section 6. Duties of Officers of Sections. The Chairman shall preside at the meetings of the section and shall perform such duties as usually belong to such an office, or as may be provided by the rules and regulations of the section. The Vice-Chairman shall assist the Chairman in the performance of his duties and shall preside in his absence or at his request. The Secretary shall keep a record of the proceedings of the section in a book provided for that purpose, and shall perform such other duties pertaining to his office as may be imposed by the rules and regulations of the section and the By-Laws of the Association.

WALTER B. DORSETT,

JABEZ N. JACKSON,

F. B. HILLER,

The Committee.

Dr. Jackson said the Association was practically working under these amendments. When the Association was divided into sections it was necessary to have two sets of officers for the sections. There had been 16 councilor districts, but it was found impossible for sixteen men to do the work, therefore the number of districts had been increased to 29.

The President ruled that the amendment to the by-laws could be acted upon at the meeting but the amendment to the constitution would have to be held over until the next meeting.

Dr. Moss moved that the House recommend the adoption of the amendment to the constitution.

The President said that would be out of order.

Dr. Jackson moved the unanimous consent to adopt the amendments at this meeting. Seconded and carried.

Moved, seconded and carried to take up the consideration of the amendments separately.

Sections 1, 2 and 3, of Article VIII, were adopted as presented by the committee.

Under the consideration of Section 4, Dr. Moss moved that the section be so changed as to permit the sections to elect the orators in medicine and surgery.

Dr. Welch thought it would be better for the orators to be elected at the general session.

Dr. Harrison said both surgeons and internists were interested in these orators, and he believed each body would be glad to have the assistance of the other in the election of these officers.

On motion the section was adopted as read.

On motion the amendments to the by-laws were taken up.

Dr. Patterson moved that Section 2, of Chapter V, be amended so that the Nominating Committee shall consist of one member from each councilor district, i. e., that it be composed of twenty-nine members. Seconded by Dr. Moss.

Dr. Sloan moved an amendment to the amendment, that each councilor district select its own committeeman.

Dr. Newberry thought this was the solution of the whole thing; if each district would select its committeeman it would greatly expedite matters.

Dr. Harrison offered as a substitute that the representatives from the district appoint the committeeman.

Dr. Newberry offered as an amendment to the substitute that the President name the members of the Nominating Committee.

A standing vote showed 29 in favor, 33 against the substitute.

Dr. Jackson moved a substitute for the original motion to insert in the first line the word "President" in lieu of "House of Delegates." Seconded and carried.

On motion the addition of Section 6 to Chapter V was adopted as read.

On motion the addition of Section 6 to Chapter VIII was adopted as read.

The tellers reported the vote on delegates to the American Medical Association, as follows: Dr. Hall, 32; Dr. Griffith, 28; Dr. Cale, 25; Dr. Goodier, 21; Dr. De Vilbiss, 10; Dr. Brummall, 5.

Dr. Moss moved that the rules be suspended and that the Secretary be instructed to cast the ballot for the two gentlemen having the highest vote, and that the two having the next highest votes be elected alternates, the alternate having the highest vote to be the alternate for the delegate receiving the highest vote. Seconded and carried.

The ballot for the election of the Committee on Nominations resulted in the election of the following: A. H. Hamel, De Soto; E. H. Miller, Liberty; J. McComb, Lebanon; R. M. Funkhouser, St. Louis; C. E. Fulton, Springfield; L. W. Dallas, Hunnewell; J. N. Jackson, Kansas City; J. D. Seba, Bland; M. P. Overholser, Harrisonville; W. R. Patterson, Tipton.

Dr. Fulton presented the following amendment to the constitution and by-laws:

Let there be a new section to Chapter VIII of the By-Laws of the Missouri State Medical Association, to be known as Section 6, which may read as follows:

The Medico-Legal Committee shall consist of three members, who shall, upon request and in compliance with the conditions hereinafter named, aid in the defense of suits for alleged malpractice instituted or threatened against any member of the association. Conditions:

(a) Any member desiring to avail himself of the provisions of this section shall, so soon as possible, after any demand has been made upon him, present to the committee his request for aid in the defense together with a full and complete history of the case and the services therein rendered. The committee shall then, with the aid of its counsel, advise said member up to the time of the institution of suit without any expense to the member so charged. Should the member desire the committee's services subsequent to the institution of suit, he shall authorize the committee to further aid in the defense of said suit. The committee shall thereupon without expense to the member provide for all medical expert services necessary for the trial and the necessary legal services of its counsel; Provided, that the committee shall not obligate itself or the Association for the payment of any damages awarded in the trial or upon compromise.

(b) Such medico-legal aid or defense as is herein specified refers only to civil malpractice and is not to be construed to apply to criminal prosecutions.

(c) The committee with the approval of the House of Delegates shall have authority to employ counsel for the term of one year to advise as aforesaid and to represent any member of the Association in suits for alleged malpractice upon the terms hereinabove provided. The compensation of the attorney shall be determined by the Committee with the approval of the House of Delegates.

On motion the report was referred to the Committee on Amendments to the Constitution and By-Laws.

Dr. Grindon thought there should be an amendment whereby the representation to the Missouri State Medical Association instead of being based on the membership of the local societies April 1st, should be based on the membership returns on December 31st.

The Chair instructed Dr. Grindon to refer the matter to the Committee on Revision.

Dr. Newberry presented the following resolution:

Whereas, The writing of prescriptions for intoxicating liquors by physicians, when the same are not indicated as a curative remedy, has the effect of bringing the medical fraternity into disrepute, therefore, be it

Resolved by the Missouri State Medical Association that it is the sense and expression of this Association that our State Board of Health look carefully into all cases where members of the profession are charged with such offense and take such steps as may be necessary to correct such evil.

Dr. Newberry moved the adoption of the resolution. Seconded and carried.

Dr. McAlester presented a resolution on the death of Dr. John W. Trader. On motion the resolution was adopted and referred to the Committee on Publication. (See page 748.)

On motion the House adjourned at 3:50 p. m. to reassemble at the call of the Chair.

THIRD DAY—Thursday, May 21st, 1908.

WOODMAN HALL.

The House of Delegates was called to order at 8:40 a. m., the President in the chair.

The Secretary read the following telegram from Dr. C. A. L. Reed:
Cincinnati, Ohio, May 20.

Dr. A. W. McAlester,
Secretary Missouri State Medical Association,
Springfield, Mo.

Accept my thanks for the encouraging words of yourself and the Missouri State Medical Association. My best efforts shall go where duty permits.

CHAS. A. L. REED.

The Judicial Council made the following report:

The report of the Treasurer was received and immediately referred to an auditing committee, composed of Drs. C. L. Evans, Frank De Vilbiss and G. W. Whitely. This committee examined the Treasurer's receipts and vouchers and made formal report that the accounts were correct. He was directed to furnish a bond in the sum of \$4000.00.

A petition was presented from the National Organization of Anti-Tuberculosis Societies, asking the Judicial Council to recommend to your body the appropriation of a sum of money (\$1000.00), to be placed in the hands of the State Board of Health and used for the purpose of disseminating further knowledge concerning the means of preventing and controlling the ravages of tuberculosis. After a very careful and exhaustive study of the needs of the Association and a critical examination of its available funds, your Council regrets to say that it could not see its way clear to making a favorable report upon the request, and is compelled to state that the treasury will not bear the appropriation of any sum for the purpose indicated and leave us free from debt; this notwithstanding the great desire of the Council to assist in every way in furthering the work of the antituberculosis societies.

On motion a committee, consisting of Drs. Dorsett, Harrison and McAlester, was appointed to examine the constitution and by-laws of affiliated county societies for the purpose of determining whether these conform with the constitution and by-laws of the State Association.

The resolution introduced by Dr. Joseph Grindon, calling for action in regard to changing the by-laws so that the fiscal year of the Association will end on December 31st instead of April 1st, was favorably considered and it is recommended that this be adopted.

The recommendations contained in the President's message, referred to the Council by your body, were carefully considered and the Council reports thereon as follows: That \$500.00 of the funds of this Association be set aside for the fiscal year 1908-1909, for the purpose of defending members against suits for civil malpractice; and that a committee of three be appointed by the President to be known as the Defense Committee, which shall have full power to make all necessary arrangements for defending members, and whose duty it shall be to prepare the medical defense of a member who may be sued or threatened with suit for civil malpractice.

That the recommendation to change the time of meeting of the Association from May to November be not adopted at this meeting, but that the question be held open for discussion in the county societies and action taken at the next meeting.

The committee on revision reported adversely upon the suggested amendments to the constitution and by-laws providing for the legal defense of members. Since the action favorable to inaugurating a system of defense for our members is in the nature of an experiment and the recommendation that an appropriation be set aside for the use of the defense committee limits the time during which this may be available to one year, your counsel deems it inadvisable to establish by-laws covering an experimental act. If at the end of the year the medical defense of members is found feasible and practicable, suitable by-laws may be drafted and adopted at the next annual meeting.

That the Secretary and the Editor of the JOURNAL be delegated to attend the conference of state secretaries and editors at Chicago, on June 1st of this year, as the official representatives of this Association, and that their actual expenses be paid by the Association.

The report of the Publication Committee, referred to the Council, contained a recommendation that the JOURNAL be increased to 80 pages monthly, instead of 64 as at present. Your Council is forced to suggest only a partial acceptance of this recommendation, for the same reason than induced an adverse report upon the request of the anti-tuberculosis society, namely, the lack of sufficient funds. The Council, therefore, recommends that the Publication Committee be allowed the sum of \$125.00 for extra pages during the year. (This will give us about 50 more pages.)

It is the unanimous opinion of the Council that the allowance heretofore appropriated to defray the expenses of the Secretary, namely, \$300.00 per annum, is not sufficient to enable that officer to conduct the affairs of the office with accuracy and uniformity. It is therefore recommended that the salary of the Secretary be increased to \$600.00 per annum.

Dr. McAlester was re-elected Secretary, Dr. Welch was re-elected Treasurer and Dr. Goodwin re-elected Editor. Dr. Lutz was re-elected Chairman of the Council and Dr. Goodwin was retained in the office of Secretary of the Council.

Respectfully submitted,

F. J. LUTZ, Chairman.

On motion the report was adopted as read.

The Nominating Committee reported as follows:

The Nominating Committee begs leave to make the following report. After careful consideration we recommend the following members to fill the positions named, to-wit:

For Vice-Presidents: D. B. Farnsworth, Springfield; W. J. Frick,

Kansas City; J. B. Norman, California; C. H. Dixon, Holliday; M. A. Smith, Gallatin.

For Councilors: 1st District, C. L. Evans, Oregon; 9th District, A. R. McComas, Sturgeon; 14th District, C. T. Ryland, Lexington; 17th District, R. D. Haire, Clinton; 21st District, G. M. Rutledge, Ste. Genevieve; 22nd District, F. R. Newberry, Fredericktown; 24th District, T. W. Cotton, Van Buren.

Respectfully submitted,

The Committee.

On motion the report was adopted.

Dr. N. P. Wood, Councilor for the 13th District, handed in his resignation. On motion the resignation was accepted.

It was moved that a committee of three be appointed to consult with the members from the 13th District for the purpose of selecting a successor to Dr. Wood. Seconded. Moved to amend by referring the matter of selecting a successor to Dr. Wood to the delegates from the 13th District present at this meeting, instead of to a committee of three. Seconded and carried.

The Nominating Committee having failed to nominate members for the Committee on Public Policy and Legislation, nominations were called for on the floor and the following members were elected: Dr. H. E. Pearse, Kansas City; Dr. Robert M. Funkhouser, St. Louis; Dr. F. R. Newberry, Fredericktown.

Dr. Robert M. Funkhouser moved that the thanks of the Association be extended to the Committee on Arrangements, to the daily press of Springfield and to the citizens of Springfield, for the courteous and generous manner in which the Association had been entertained at this meeting. Seconded and carried.

Motion was made that the Councilors be requested to put forth special efforts during the coming year to bring about a friendly and harmonious feeling among the members in their districts, and especially urge that all eligible practitioners should become members. Dr. Newberry moved the adoption of this motion and stated that it was especially proper to have such a resolution emanate from the governing body. Adopted.

Dr. Grindon introduced the following petition:

To the President and Members of the House of Delegates of Missouri State Medical Association:

The undersigned members of the Missouri State Medical Association, engaged in the practice of the diseases of the eye, ear, nose and throat, do respectfully petition the House of Delegates to authorize the formation of a "Section on Eye, Ear, Nose and Throat."

We submit the following reasons in support of our petition:

(1). A large number of the members of the Association, roughly estimated at from four to five hundred, are engaged in the practice of these branches.

(2). These branches more than any others, are distinct specialties and not properly classifiable under the general headings of "Medicine" and "Surgery."

(3). Other state societies, e.g., Ohio and Pennsylvania, have recog-

nized this need and authorized such sections, which, for a number of years, have been in highly successful operation.

(4). Practitioners of these specialties, recognizing the difficulties of selecting subjects suitable for presentation before a general medical body, are deterred from presenting papers. For instance, this year's program contains only three papers on subjects of interest to ophthalmologists and oto-laryngologists.

We contend that the creation of such a section would provide opportunity for a large number of members at present debarred from active participation in the scientific work of the annual meetings, would greatly increase the output of valuable contributions, and would certainly result in increased interest and attendance. On the other hand, the work of such a section would in no wise hamper or interfere with the work of the medical and surgical sections.

We would respectfully suggest that such a section might properly be regarded as a sub-division of the surgical section, and could be at once established by resolution without change in constitution and by-laws.

JOHN GREEN, JR.,
ALVAH M. WILSON,
F. E. WOODRUFF,
JOS. S. LICHTENBERG,
D. B. FARNSWORTH,
T. McLEMORE,
J. L. SHORT,
M. C. SHELTON,
E. E. PARRISH,
J. H. THOMPSON,
GEO. L. NOYES,
A. W. McALESTER, JR.,
C. A. MOORE,
W. A. CAMP.

We, the members of the Scientific Committee of the Missouri State Medical Association, do hereby recommend to the honorable House of Delegates that the petition for a new section, to be known as the Section on Eye, Ear, Nose and Throat, be established as one of the working sections of this Association.

Signed:

W. S. ALLEE,
President.
H. E. PEARSE,
Chairman Surgical Section.
T. F. LOCKWOOD,
Chairman Medical Section.
P. Y. TUPPER,
Secretary Surgical Section.
G. D. ALLEE,
Secretary Medical Section.

On motion the petition was granted and the Committee on Scientific Work was instructed to arrange for a Section on Eye, Ear, Nose and Throat Diseases at the next annual meeting. The President appointed the following Organization Committee for this section: Dr. J. H. Thompson, of Kansas City; Dr. T. McLemore, of Nevada; Dr. M. C. Shelton of Joplin.

The delegates from the 13th District reported that they recommended Dr. Franklin E. Murphy of Kansas City to fill the vacancy of

Councilor in the 13th District, caused by the resignation of Dr. Wood. On motion the report was adopted, and Dr. Murphy was declared duly elected.

The president announced the following members of the defense committee, namely: Dr. F. J. Lutz, Dr. Walter B. Dorsett, Dr. Joseph Grindon.

Dr. Madry moved that the report of a committee of the Southwest Missouri Medical Association be adopted by this Association. This motion was amended to refer the report to the Committee on Public Policy and Legislation with instructions to consider the matter of publishing the recommendations in the JOURNAL, or otherwise, for the information of the members of the Association.

The House proceeded to select the place for the next annual meeting. Jefferson City and St. Louis were nominated, the vote resulting in the choice of Jefferson City.

On motion the House of Delegates adjourned at 9:35 a. m.

MINUTES OF THE MEETINGS OF THE JUDICIAL COUNCIL.

FIRST DAY—Tuesday, May 19th, 1908.

The Judicial Council was called to order by the Chairman at 4 p. m., with the following members present: Drs. C. L. Evans, W. T. Elam, G. W. Whitely, C. R. Buren, E. E. Parrish, L. W. Dallas, W. B. Dorsett, Woodson Moss, J. D. Brummall, E. H. Miller, N. P. Wood, M. P. Overholser, J. R. Buchanan, R. D. Haire, Frank De Vilbiss, G. Etmueller, F. J. Lutz, Frank Harrison, H. C. Shuttee, T. A. Coffelt, A. R. Snyder.

The minutes of the last annual meeting were adopted as printed in the JOURNAL, June, 1907.

The Treasurer's report, referred to the Council by the House of Delegates, was taken up and an auditing committee appointed to examine the accounts and report at the next meeting. This committee was composed of the following members: Drs. C. L. Evans, Frank De Vilbiss, G. W. Whitely. (See page 802.)

On motion adjourned to 9:30 a. m., Wednesday.

SECOND DAY—Wednesday, May 20th, 1908.

The Judicial Council was called to order at 9:50 a. m., the Chairman presiding.

Dr. William Porter presented the following resolution from the Missouri State Committee on Organization:

The Missouri State Committee on Organization, representing those who are vitally interested in the question of the stamping out of tuberculosis in our state of Missouri, begs to submit for consideration of the House of Delegates of the State Medical Association a proposition that it is felt will aid the work in this state to greatest advantage.

Whereas, now the state has an Association for the Prevention and Control of Tuberculosis, organized at Jefferson City last year, and

Whereas, this organization, although lacking in funds, has been active in stirring up interest at points throughout the state of Missouri and has succeeded in organizing active branches in some of the counties throughout the state, and

Whereas, a nucleus of a splendid tuberculosis exhibit now exists, and it is felt that if this exhibit placed in the hands of some energetic man could be sent to different places throughout the state, that Missouri would soon be in the van of the anti-tuberculosis crusade, and

Whereas, it is felt also that the State Board of Health is the proper channel through which work of this character should actually emanate with the active co-operation of the State Association for the Prevention and Control of Tuberculosis, members of this Association also being members of the State Medical Association,

Therefore Be It Resolved, that the Missouri State Committee of Organization ask the State Medical Association for a contribution of one thousand (\$1000.00) dollars to be placed in the hands of the State Board of Health for the purpose of disseminating knowledge in the state of Missouri concerning tuberculosis by means of a traveling exhibit and such other measures as from time to time may be determined upon by the committee and by the State Board of Health, and further moved that a committee be appointed by the State Association to combine with the State Board of Health in reference to the expenditure of this fund.

We, therefore, respectfully request that this matter be given earnest consideration as we feel that only in this manner can Missouri be placed in the position that is justly due her in this great work in preventive medicine.

WM PORTER, Chairman,
E. J. GOODWIN,
LOUIS M. WARFIELD,
Sub-Committee.

Dr. Joseph Grindon was accorded the privileges of the floor and submitted the following suggestions for amending the by-laws of the Association:

Amend Chapter 6, Section 3, by substituting the words "December 31st" for the words "April 1st."

Amend Chapter 9 Section 1, in the same manner.

Amend Chapter 12, Section 13, in the same manner.

Dr. Grindon urged the Council to recommend these changes and mentioned the following reasons why this should be done: First, that the termination of the fiscal year with the calendar year would greatly facilitate the keeping of accurate records of the Association. Second, that members of local societies would not be taxed for membership in the State Association without having representation therein. Third, that the election of delegates to the State Association would be much simplified and put upon a uniform basis.

Dr. Elam moved that the amendment be approved and referred to the House of Delegates for adoption. Seconded and carried.

Reports of the Councilors were called for at this point and the following members responded:

Dr. C. L. Evans, Councilor 1st District: It is with pleasure I report the 1st District well organized and flourishing. Our county societies have worked wonders for the medical profession by bringing doctors together; acquaintance has made friends out of enemies, and I have actually heard of members defending one another, who previous to the organization of the county medical society, seemed to cherish nothing but hatred and malice in their hearts for their professional brethren; but now jealousy and back-biting is fast disappearing, and peace and harmony prevails. In the near future we will be able to present a solid and united front among whom no contention exists, except that noble contention or rather emulation—who best can work and best agree.

Atchison County Medical Society has twenty active members; four

delinquents. They held four meetings during the year, but had only two prepared papers presented for consideration. When those that were on the program failed the time was spent in discussing subjects.

Holt County Medical Society has an active membership of seventeen; there are three delinquents. There were four meetings held during the year at which seven papers were read, and several subjects, previously announced, were discussed by all present. With few exceptions Holt County physicians have attended their quarterly meetings, and in the future we have decided to meet every two months in place of three, and a post-graduate course is contemplated.

Nodaway County Medical Society has a membership of twenty-eight, also two honorary members, but I regret to have to report ten delinquents. They held six meetings during the year at which twenty papers were read, followed by a general discussion.

The problem "How to secure a better attendance and especially of those members assigned papers," still remains unsolved.

Dr. W. E. McKinley, formerly Councilor for the 3d District, made report of the condition of affairs in that district up to the time of his resignation. He had visited the four counties in the district and found all in good condition except Worth County. In this county no meetings had been held for some little time, and in September he made a special effort to get the members to begin holding meetings. Soon after this his resignation was accepted and Dr. Whitely was appointed the Councilor for the district.

Dr. G. W. Whitely, Councilor of the 3rd District: I have been unable, from the fact that I have been so very busy with my own practice, to visit any of the counties in my district since my appointment last November. I have written to, or telephoned every member in the county of Worth and saw some of them personally, but we have a falling off of membership with all of our work. Dr. J. K. Phipps has been an untiring worker but has failed to hold the membership to the last year's number. No meeting of Worth County Society has been held since I have been Councilor.

Dr. Marrow tells me he has kept the ball rolling in Harrison County and I have written all the delinquents but have only succeeded in bringing in a few of them. The number of meetings held is 6.

Dr. Evans, the Secretary of DeKalb County has been a very able and hard worker but has lost some of his members. I have had but little communication with his members but visited them at Maysville in November at the annual district meeting, held there at that time, and was told that it was a hard proposition to get a quorum in the county meetings.

In Gentry County we are about holding our own. We meet quarterly, but decided to have a few called meetings and have a special program that we might induce more to attend and get those who are eligible, and are not members, to join.

The district organization is in good working order. Three meetings have been held since the state meeting. These were enthusiastic and well attended meetings, the papers being of more than ordinary worth. In November we will meet in Albany, and trust to have a very excellent meeting.

MEMBERSHIP FOR 1907-1908.

	1907	1908	Gain	Loss
Gentry	12	13	1	
Harrison	19	13		6
DeKalb	14	12		2
Worth	10	7		3
				<hr/> 11 Loss.

I have done all in my power to keep up the membership, except to attend the meetings of each county; this I hope to do in the future. We are indebted to the physicians of St. Joseph for their help and presence at every meeting of our District Medical Society as well as to Drs. Pearse, Tiffany, Punton and Hertzler of Kansas City, who have given us their aid and presence.

Dr. L. W. Dallas, Councilor of the 7th District: Marion County: Number of members in good standing 28; gain over last year, 5; number of eligible not members, 12; number of meetings, 12.

Ralls County: Number of members in good standing, 10; gain over last year, none; number of eligible not members, 6; number of meetings, 4.

Shelby County: Number of members in good standing, 17; gain over last year, 3; number of eligible not members, 7; number of meetings, 5.

The total members in the District is 55; eligible not members, 25; gain in District this year, 8.

PERCENTAGES OF MEMBERSHIP IN THE 7TH DISTRICT.

Marion County: Per cent. in county society, 70; per cent. not in county society, 30.

Ralls County: Per cent. in county society, 62.5; per cent. not in county society, 37.5.

Shelby County: Per cent. in county society, 70; per cent. not in county society, 30.

Per cent. in county societies, 68; per cent. not in county societies, 38.

Dr. W. B. Dorsett, Councilor for the 8th District, said the general condition in his district was good, except in the counties of St. Charles and Lincoln. In St. Charles County the conditions are peculiar because of the fact that most of the members live in the city of St. Charles which maintains a local society composed of physicians living in St. Charles. This fact detracts from the interest in the county society and but few meetings of the county society had been held. He has made an effort to have the local society of St. Charles merged with the county society but so far has not been successful. In Lincoln County the members are very inactive; but one meeting had been held during the year and little has been accomplished in the way of arousing general interest in county society work among the majority of the members. Pike County has held 12 meetings, at which 25 papers were read and discussed. Two new members have been added. The members in this county are doing splendid work. Their programs are interesting and always contain more papers than are read. St. Louis County has held 11 meetings and 13 papers have been read and discussed. Six new members have been added, while five dropped out. St. Louis County

also is doing splendid work and the interest in the organization is being maintained with highly commendable strength. In St. Charles County two meetings were held and 6 papers were read. Two new members were added during the year, while one dropped out.

The inactivity of Lincoln County is simply due to a lack of interest in medical matters. If nothing more can be done to arouse these members and induce them to maintain a separate county society, he recommended that this county be hyphenated either with St. Charles or Pike County, if such action would strengthen the organization in this district.

Dr. Woodson Moss, Councilor for the 9th District: Audrain County Medical Society has increased three members and the spirit of the society is very good, and I think we have reason to be encouraged. This county for years has had a discordant element in it, which I think is gradually disappearing and we may soon look for brighter days.

Boone County Medical Society has not grown any, but we are in a much better condition than we were a year ago. We have been having some good meetings for the last four months and have a plan for the summer work which I think will be of great benefit. We are confident of keeping up a good organization.

Howard County Medical Society, I think, is in good condition, although they seem to be a little discouraged sometimes.

Callaway County Medical Society does not seem to be in very good condition. Their membership is not up to that of last year and they seem to be a little discouraged.

Montgomery and Warren Counties, so far as I know, are burnt districts. I have not been able to do anything for them.

I have not been situated this year so as to give these counties the attention that they possibly should have had. I do not see any reason for our becoming discouraged. By constant effort and not becoming discouraged ourselves, we will finally get an organization in these counties, which I think, will last.

Dr. J. D. Brummall, Councilor 11th District: I have written to all the doctors in my district three times and to the officers of the different county societies from six to ten times. I made one trip into Carroll County to see the secretary and other members. I report my district in good shape and strictly in line with the present form of organization. All of my counties are fairly well interested in the work, while a part of them are enthusiastic.

I append herewith a table showing the status of the doctors in each county, the number belonging to each society, the meetings held in each county, scientific communications read, and clinics presented. This shows a loss of sixteen members; four of these moved away, three have died and some have retired. When you take these facts into consideration and also that in 1907 we had a special canvasser in my district, I think the showing is pretty good.

The secretaries of my district have worked faithfully to retain the membership, and I do not doubt but that now it is on a stable basis and is more likely to increase than to diminish in the future.

	Carroll.	Chariton.	Linn.	Livingston.	Total.
Doctors in county.....	30	33	45	34	142
Belonging to society, 1908....	22	24	30	17	93
Belonging to society, 1907....	24	27	36	22	109
Moved out of county.....	..	2	1	1	4
Moved into county.....	4	1	..	2	7
Died during year.....	2	..	1	..	3
Meetings held.....	10	10	6	3	29
Scientific communications....	5	6	10	5	26
Clinics presented.....	No record	7	2	2	11
Members lost.....	2	3	6	5	16

Dr. M. P. Overholser, Councilor for the 15th District, reported as follows: Johnson County: Number of members in good standing, 27; number of members who removed from county, 1; number who failed to pay dues, 3; number of deaths of members, 0; number of new members during the year, 4.

All of the best medical men of Johnson County are members of the county medical society. Four regular meetings are held each year, with one or two special programs annually. Six scientific papers were read and discussed by the members of the society during the year, and in addition one paper on ethics and another on the business methods of the physician. Clinical cases of rare occurrence have been presented to the society at its meetings; these were carefully examined and thoroughly discussed by the members. Resolutions were passed by the organization stating that it was inimical to the best interests of the society, and the profession in general, for its members to engage in contract practice, whether for individuals, societies, county or state, and the members of the society agreed not to do any of this class of work. They further agreed not to make life insurance examinations for lodges and societies for less than \$3.00 for each examination.

Cass County: Number of members in good standing, 27; number of members who failed to pay dues, 4; number of members who moved from county, 7; number of deaths of members, 0; number of new members, 4; number of members who withdrew from society, 1; number of meetings during the year, 6; number of scientific papers read and discussed, 14.

Aside from the scientific work of our society, its members have been concerned in the enforcement of our medical laws. At our last election the physicians of our county took an active part in the election of a prosecuting attorney who is ready at all times to enforce our state medical laws. As an evidence of this work during the last year an unlicensed, advertising so-called rectal specialist was prosecuted, convicted and fined. The fines with costs of court amounting to \$225 to which was added his attorney fees, all of which he was compelled to pay for the violation of our medical practice act.

The efforts of the medical profession to control tuberculosis in our state by the establishment of state sanatoria have been explained to the public and our county court, and their co-operation obtained, as shown by an application of the court to the Superintendent of Mt. Vernon Sanatorium for admission of indigent patient at cost of county.

The physicians of our county society, regardless of politics, are united on the matter of the election of a representative to our state legislature who will support all worthy measures for the protection of the public from dishonest, incompetent, unqualified persons who treat diseases of the human body, for the maintenance of the standard of medical education, for the appropriation of sufficient funds for our state board of health, and for the sanatorium method of caring for the tubercular

patients of our state, and other much needed medical laws along the lines of public hygiene and sanitation. The physicians of the 15th Councilor District are wide awake to their duties and are willing to lend a united support to all measures proposed for the interest of the public and our profession.

Dr. J. Robert Buchanan, Councilor for the 16th District: It is with a degree of pleasure that I am permitted to call your attention to the improved conditions existing in the 16th District. These advances are due more largely to an awakened general interest in matters professional than to my personal efforts. The 16th District consists of the counties of Bates, Vernon and Barton and the territory is occupied by physicians wide awake, intelligent and progressive, and to be the representative of such a class of men is a real pleasure. To express the conditions in this District in terms of modern slang, "there are no flies on the doctors" down there.

The secretary of Bates County Society, Dr. E. A. Chastain, makes the following report: Meetings previously held quarterly during the year, have been changed to monthly meetings; number of meetings held, 4; average members in attendance, 7; papers read during year, 7; clinical cases presented, 2; public meetings held, 1; number of members last year, 16; new members added during year, 6; present membership, 22; number of physicians in county that are eligible to membership and are not members, 14. Financial condition of society is fair. Social and professional relations are good. Their open or public session, held April 16th, was a pronounced success. I had the pleasure of being present at their public session and the interest evinced, both by the profession and the laity, was very gratifying.

Dr. T. McLemore, secretary of the Vernon County Medical Society, furnishes me the following data: The Vernon County Society meets at 2 p. m. on the first Thursday of each month. Number of members reported at last annual meeting, 22; number of members now enrolled, 29; number of members deceased, 1; number of members removed from county, 2; number of members delinquent, 2; number of new members admitted during the year, 10. Financial condition of society: Cash brought forward from 1906-1907, \$15.78; receipts during year 1907-1908, \$13.00; disbursements during year 1907-1908, \$12.10; balance on hand May 19, 1908, \$16.68. The social and fraternal relations of the profession never were so good in the history of the county. The number of meetings held during the year is 10; average attendance, 10; number of papers read, 12; number of cases reported, 8; public or open sessions held, 1. The date of this meeting was well advertised and the public cordially invited to attend. Our program was well selected and arranged to please and instruct a mixed audience and was attended by an immense audience, limited only by the size of the house and was greatly enjoyed and highly complimented by those in attendance.

From the report of Dr. C. F. Brown, secretary of the Barton County Society, I glean the following facts: The society meets quarterly; the number of meetings held during the past year, 2; average number in attendance, 9; number of papers read, 4; no clinical case reported; number of members reported last year, 14; number of members in good standing now, 13; net loss, 1; open sessions held, 1. The financial condition of the society is good. The professional and social status of the physicians could not be better.

Summary of the District: Number of members reported May, 1907, 52; number reported now, 65; gain during year, 13. The scientific work

done during the year marks a material advance. The financial condition of the various county societies is very satisfactory. The fraternal relations of the physicians are most cordial. The expressed wish of the entire profession for a general advancement and uplift along all lines is universal. I have reason to express my appreciation of the courteous assistance rendered me by the physicians of this District in my efforts toward a thorough organization and unification of the profession.

Dr. Robert D. Haire, Councilor of the 17th District: I herewith submit my report up to the present time, May, 1908:

Benton County: Active members, 15; eligible physicians in county not members, 4; loss by death, 1; active members (May, 1907), 11; total gain, 4.

Henry County: Active members, 33; eligible, not members, 10; loss by removal, 1; active members (May, 1907), 20; total gain, 13.

St. Clair County: Active members, 8; delinquents, 5; eligible, not members, 8; honorary, 1; active members (May, 1907), 7; total gain, 1.

Pettis County: Active members, 41; no further report.

Hickory County: Unorganized, eligible physicians, 7, two of whom belong respectively to the Benton County Society and the St. Clair County Society.

In regard to the St. Clair County Society, I think a plausible explanation of the delinquent and number of eligible physicians who are not members, is the fact that the county seat, Osceola, is difficult of access by rail, and would suggest as a remedy, that the alternate meetings be held in Appleton City, so that all of the physicians of the county could attend one or the other sessions.

Dr. Frank De Vilbiss, Councilor for the 18th District, stated that the work in all the counties in his district was very good, except in Camden County. He had been prevented from visiting the societies on account of other duties that had occupied all his time, but he promised to try and bring Camden County into good working condition.

Dr. F. J. Lutz, Councilor for the 20th District, stated that Franklin County had 23 members and only about 5 eligible physicians in the county not members of the local society. In this county the physical conditions are such that it is difficult for members from all parts of the county to reach a general meeting place. The county is very hilly and is traversed by the Missouri Pacific and the Frisco railroads, which separate the sections off these lines in such a manner as to make it difficult for members living on one railroad to meet with members living on the other railroad. The Secretary of Franklin County Society and Dr. Lutz had written personal letters to the one delinquent member and to all eligible physicians, making personal appeals to join, and had four responses. In St. Louis city, the total membership at this date was 596 paid up, and the treasurer of that society had remitted dues for that number to the State Secretary. As to the scientific work done by the St. Louis society, he had no detailed report. The character of the society has been changed very considerably and from being a general society, holding four meetings monthly, it has been subdivided into the following sections: The Ophthalmic Section, the Section on Internal Medicine, the Urological Section, the Obstetrical Section, the Oto-Laryngological Section and the Surgical Section. All members of the society are privileged to attend the meetings of these sections. The general meetings of the whole society are held twice a month. The meetings are fairly well attended and there has been a very unusual

amount of activity and interest in the scientific work of the body. The increase of membership, numerically, has not been as great as in previous years. During 1907, 117 new members were added, while this year only 48 new members joined the society. The large increase of the previous year will probably not be duplicated, as additions must be made from the young graduates, of which there is not a large number beginning to practice each year. However, as soon as a young man begins practice, he is approached and an effort made to induce him to join the society. The general status of this society is being constantly improved. There is a medical library, which is supported not by the medical society, but by individual contributions. The total number of volumes is now 10,700, with a membership of 165, out of a possible membership of almost 2,000.

Dr. B. M. Hypes, Councilor of the 21st District: Jefferson County, organized, has held regular meetings during the year with fair attendance and some interesting papers and discussions. Membership about the same as last year.

Perry County has an organization, but it holds no regular meetings and but few of the members pay dues. Would recommend that this county be attached to or hyphenated with some other county, for instance, Ste. Genevieve, with which it has direct railroad connection.

Dr. T. C. Allen, Councilor of the 23d District: I regret to be compelled to report a very unsatisfactory condition of affairs in the 23d district. The old tenth district was divided at the last meeting of the Association and Dr. D. R. Corbin of Bloomfield was appointed Councilor for the 23d District, composed of Stoddard, Dunklin, Pemiscot and New Madrid Counties. Pemiscot and New Madrid Counties were disorganized and Dunklin was, and is yet, doing little work. Dr. Corbin died August 10, 1907, without having accomplished anything. My appointment as his successor was not announced to me until in March of the present year, and I have been able to do but little more than preliminary work in the district. I have not been in a position to make visits to these counties. Some members of the New Madrid County society to whom I have talked are opposed to any attempt at reorganization, while others to whom I have written have not thought best to give me any reply. In Pemiscot County, physicians seem to be apathetic. In Dunklin County an organization is still maintained, but little work is being done. In Stoddard County the organization is in good condition and enthusiastic meetings are held bi-monthly. Since its organization in August, 1904, this society has never failed to meet at its stated times and to do scientific work.

Dr. J. F. Harrison, Councilor of the 25th District: I was appointed February, 1908, following the resignation of Dr. F. L. Keith of Flat River. Of the four counties comprising the District, two, Iron and St. Francois, have good organizations. Washington and Reynolds Counties are not organized. It seems that previous attempts to organize these counties have met with failure. The railroad facilities are very poor and those physicians wishing to participate are so remote that it is almost impossible for them to attend meetings. I would suggest that the physicians of these counties be advised to unite with the societies of the adjoining counties.

The only matter of importance that has been called to my attention as Councilor, is the disregard of quarantine regulations by some of the practitioners in St. Francois County, which question has been taken up with the State Board of Health.

Dr. R. L. Johnson: The 26th District of the Judicial Council, which I have the honor to represent, is composed of the counties of Crawford, Dallas, Dent, Laclede, Phelps and Pulaski.

Of these I have the pleasure to report, that Dent, Laclede, Phelps and Pulaski are well organized, and are in good standing; Dent having eleven members; Laclede eighteen; Phelps, sixteen and Pulaski, nine.

As to Dallas County, I can only report, as on former occasions, that I do not think it is worth while for me to attempt to do anything for an organization there. There is no town of any size and no railroad in the county. In a letter from Dr. Frederick Green, Assistant Secretary American Medical Association, he says: "Dr. S. H. Addison, who was assigned to that territory, reported that with exception of Dallas County, most of the physicians in your district were members of their county societies. He evidently had no better success than you did in arousing the physicians of Dallas County."

Crawford County Society was organized at one time, but has failed to keep up the organization.

I regret to report that quite a number of physicians content themselves with paying their annual dues, but do not take the trouble to attend the meetings.

Dr. H. C. Shuttee, Councilor of the 27th District: Howell is organized and Shannon is hyphenated with Carter in the 24th District as the Carter-Shannon County Society.

Ozark and Douglass Counties are off the railroad and have few physicians, and only a corner of Texas and Oregon Counties is traversed by a railroad.

The work of canvassing the situation in Oregon County was referred to Dr. D. T. Powell of Thayer, formerly President of the State Board of Health, and of Ozark County to Dr. C. F. Green of Bakersfield, both of whom reported that his county could not maintain an organization.

About a year and a half ago I visited Mountain Grove, Wright County, and organized a society to include Wright, Texas and Douglass Counties with four members. They had one meeting and then quit.

Some of the counties in my District might be organized if some one would devote several days' work to each county, personally visiting the doctors, but I have not felt that I could spare the necessary time to do this.

Howell County now has 16 members, three of whom reside in Oregon County. Very little scientific work has been done. We have had no trouble in securing promises of papers, but few have delivered the goods. The establishment of the defense fund will, I feel sure, bring every member of the regular profession in my county into the society.

Dr. T. A. Coffelt, Councilor of the 28th District: I am glad to report that the entire 28th District is organized.

All societies meet quarterly except Greene County, which has regular meetings twice a month, and since the first week in this month will have two special meeting each month except August, the special meetings being devoted to a post-graduate course of study.

I have visited all of the societies this year except Christian and Webster. Have tried to keep in touch with each society as far as possible. All are having regular meetings and report interesting programs on the line of scientific work, except Christian County, which from some cause has not been able to secure a sufficient number in attendance to have a meeting.

All societies have received new members during the year except one, but according to the last reports available, all have more or less delinquents, and on this account the gain, if any, is by no means what it should be.

With the above exception, I believe the working condition of the societies of this district is hopeful and better than ever before. Most of the societies were unexperienced and are beginning to understand more fully the difficulties to overcome.

The following will show the numerical condition of the district:

County.	1907.	1908.	New Mem.	Delin.	Gain.	Loss.
Barry	20	19	..	1	..	1
Lawrence-Stone	30	26	4	8	..	4
Webster	9	15	6	1	6	..
Polk	12	12	2	4	..	2
Christian	9	7	..	2	..	2
Taney .....	..	9	9	..	9	..
Greene	54	58	9	4	4	..

The above data shows a total of 30 new members, and the total number of delinquents 20, giving a total gain of 10 in the district.

The scientific work of the different societies is of a higher order than usual in the majority of county societies.

Greene County Society is the only society in the district that has a library. The library contains between sixty and seventy volumes on the different medical and surgical subjects.

The Greene County Society has inaugurated a post-graduate course of study and the different subjects selected are presented by some member of the society in lecture form twice a month. This does not interfere with the regular meetings of the society.

I have insisted on each county society having a full representation at this meeting of the State Association.

Dr. A. R. Snyder, Councilor of the 29th District: Jasper County is in a very prosperous condition, membership numbers 46 in good standing. Some of these have paid their annual dues since the roster was published. The society meets every Tuesday evening, and is well attended with unusually good interest, always having from one to two scientific papers with many discussions and reports, and often a clinic. A banquet once each year is held and a prominent speaker invited to be present.

As Joplin is the largest city in the county, the society always meets in Joplin. There are some few doctors in the county who are not eligible to membership and some few who are too negligent to join. It is hard to awaken interest in this latter class. But a very large percentage of all are members of the society and the society as organized is the authoritative head of the medical profession here. The late reorganization of the profession has done a world of good for the physicians of Joplin and Jasper County, and for the public standing of the same. The standing of the society is such that the public press of Joplin will do anything they can to advance our interest and their columns are always open to our views on public health and legislation, and the public education on tuberculosis. Jasper County is very prosperous and its membership is increasing and interest is well maintained.

Newton County is very prosperous, numbering 24 members in good standing. Meetings are held once each month with the good attendance and especially good interest. Two scientific papers are read and discussed at each meeting, and members show no disposition to shirk this duty and pleasure.

Dr. C. P. Yates of Neosho, an old member of the profession and an old member of the Missouri State Medical Association, has died since the last report. The society experienced deep regret for their loss.

The State Journal is received and welcomed by all of the members and all feel benefitted by the reorganization and growth of the society. Several new members have been added since the last report, and only four or five physicians in the entire county are without the limits of the society. Dr. Bowers, their Secretary, is thoroughly alive to the interests of the profession and has proven himself an able worker. They are a unit for good.

McDonald County is in the southwest corner of this state and is a very rough and rugged county. It has but one railroad, which runs north and south, and few towns, which are very small. Physicians are scattered promiscuously over the county and meetings are very hard to attend. The meetings have been suspended for nearly two years, and some of the doctors have united with the society of Newton County, which is an adjoining county. The counties of McDonald and Newton may yet become hyphenated. As yet those physicians who have united with Newton County are scheduled as members of the Newton County Society. If it seems to remain difficult for McDonald to maintain a society of her own, I shall advise the hyphenation of these two counties. McDonald County, I believe, contains only about six or eight physicians within her borders and these are widely scattered and hard to interest.

Cedar County up to date has seemed to have suffered with unusual ups and downs. At present the society only numbers eight members in good standing. In the month of March an unfortunate condition arose among the members of Cedar County. The society meetings in Cedar are held monthly and are of good interest and on a good scientific basis.

Dade County is the only one where I have been unable to effect a complete organization. In Dade County the physicians are widely scattered with very poor transportation and it has been due to a lack of sufficient interest to establish a society. I am in correspondence with two or three of the physicians of this county and expect soon to have an initial meeting. This is the only county in my district still unorganized, and this, I expect, will be organized long before another report is due this Council. Since arriving in Springfield I have obtained from a doctor, a former resident of Dade County, the names of four or five active doctors in Dade County and shall correspond with each of them at once on my return and hope to soon have this county organized.

A discussion arose at this time, precipitated by a question as to whether the constitution and by-laws of all affiliated county societies conformed to the constitution and by-laws of the State Association, and was followed by a motion, duly seconded, that a committee of three be appointed to examine copies of the constitution and by-laws of affiliated county societies and see whether they conform to the requirements of the State Association; and to notify those societies, if any, having laws which conflict with the State Association laws, to amend their constitution and by-laws so as to remove such discrepancies, and report at the next meeting. Carried.

The Chair appointed the following Councilors to act upon this committee: Drs. W. B. Dorsett, Frank Harrison, A. W. McAlester, Jr.

Dr. Elam moved that all reports of Councilors be received and spread upon the minutes. Seconded and carried.

Dr. Dorsett moved that the Secretary be instructed to draft a blank report for the use of the Councilors in making their annual reports. Seconded and carried.

On motion, adjourned to 1:30 p. m.

AFTERNOON SESSION.

The Council was called to order at 1:40 p. m., Dr. Frank De Vilbiss in the chair, during the temporary absence of the Chairman.

The petition of the Missouri State Committee on Organization was brought up for action, and a motion prevailed that Dr. Porter be informed that owing to the small amount of available funds in the treasury of the Association, the Council does not feel justified in recommending an appropriation of money for the use of the anti-tuberculosis societies.

On motion the salary of the Secretary of the Association was increased to \$600.00 per annum.

Dr. Elam moved that \$34.62, the amount expended by Dr. Cross as chairman of the committee to abstract and prepare for distribution the symposium on tuberculosis read at the annual meeting of 1907, be allowed and a warrant drawn on the treasury to cover this sum. Seconded and carried.

The committee appointed to consider the advisability of establishing a medical defense fund reported as follows:

"Resolved, that \$500.00 of the funds of the Association be set aside for the fiscal year of 1908-1909 for the purpose of defending members against civil malpractice suits;

Resolved, that a committee of three be appointed by the president, to be called the 'Defense Committee,' which shall have full power to make all necessary arrangements for defending members, and whose duty it shall be to prepare the medical defense of a member who may be sued or threatened with suit, for civil malpractice."

On motion the report was adopted.

The Auditing Committee reported as follows: We, your committee appointed to audit the Treasurer's accounts with the Missouri State Medical Association, have audited the same, and find them to be correct..

C. L. EVANS,
FRANK DE VILBISS,
G. W. WHITELEY.

On motion the report was adopted.

The question of changing the time of the annual meetings from May to November, as suggested in the President's message, was taken up for consideration. After a free discussion it was decided that this action be not approved for the present, and a motion carried to defer further consideration for another year.

The recommendation of the President that the editor of the JOURNAL and the Secretary of the Association be delegated as official representatives of this Association at the meeting of the Committee on Organization of State Secretaries and Editors, at Chicago, June 1st, 1908, and their actual expenses paid by the Association, was considered. It was moved that this recommendation be approved and these officers so instructed. Seconded and carried.

The committee on revision reported upon the suggested amendments to the constitution and by-laws, introduced in the House of Delegates by Dr. Fulton, and referred to the committee. The committee recommended that these amendments be not adopted at this time. The reason for recommending such action was that the matter of providing legal defense for members is in the nature of an experiment and the provisions for thus protecting members are limited to one year. The committee stated that if, after the expiration of this period, it was found that the legal defense of members was an important feature of the organization, and could be successfully prosecuted by the Association, suitable amendments could be made in the by-laws at the next annual meeting.

On motion the report was adopted.

The committee appointed to examine the constitution and by-laws of affiliated county societies reported that it found a section of the by-laws of the St. Louis Medical Society conflicted with the provisions of the constitution and by-laws of the State Association. On motion the report was adopted and the committee was instructed to communicate with the St. Louis Medical Society and request them to change this section so that it shall be in harmony with the provisions of the State Association.

The report of the Publication Committee, referred by the House of Delegates, was read. The suggestion of the committee that the JOURNAL be increased to 80 pages each issue was not approved. A motion was made and duly seconded that \$125.00 additional to the cost of publishing 64 pages, be set aside for the use of the Publication Committee, to be expended in paying for extra pages in the JOURNAL during the year. Seconded and carried.

Dr. Elam moved that the Publication Committee be instructed to ascertain the probable cost of publishing the Journal by the Association and bring in a full and complete report at the next meeting. Seconded and carried.

On motion the expenses incurred by the Committee on Scientific work and the Committee on Arrangements, the former amounting to \$122.43, for publishing and mailing the program, and the latter, amounting to \$103.50, for entertaining the Association at this meeting, were allowed.

Dr. Frank Harrison of Farmington was elected a member of the Executive Committee in place of Dr. Hypes, whose term of office expired.

Dr. Lutz, Councilor for the 20th District, presented for the St. Louis Medical Society the question whether affiliated county societies shall be

obligated to pay into the treasury of the State Association back dues for such members as have been reinstated to full membership by such county societies. On motion the matter was referred to the Executive Committee with instructions to report at the next annual meeting.

The election of the Secretary and the Treasurer for the next year was taken up and the ballots cast for each, resulting in the re-election of Dr. A. W. McAlester, Jr., for Secretary, and the re-election of Dr. J. Franklin Welch, for Treasurer.

Dr. E. J. Goodwin was reappointed editor of the JOURNAL.

Dr. F. J. Lutz was elected chairman of the Judicial Council and Dr. E. J. Goodwin elected Secretary of the Judicial Council.

On motion adjourned.

GENERAL SESSION.

FIRST DAY—Tuesday, May 19th, 1908.

BALDWIN THEATER.

The meeting was called to order at 8 o'clock p. m. by the Vice-President, Dr. A. H. Vandivert of Bethany.

The Rev. Mr. Bacon of Springfield pronounced the invocation.

Dr. T. A. Coffelt, President of the Greene County Medical Society, read the address of welcome, and Dr. W. G. Moore of St. Louis, responded to the address of welcome.

President Dr. W. S. Allee of Olean, delivered the annual address. (See page 729.)

Dr. John H. Duncan, orator on medicine, read an essay entitled, "The Relation Between Diseases of the Skin and Diseases of Other Organs of the Body."

The oration on surgery was delivered by Dr. Herman E. Pearse of Kansas City.

The meeting was largely attended by the members of the Association and many of the citizens of Springfield. The addresses were well received and highly appreciated by the entire audience.

The meeting adjourned at 10:30 p. m..

SECOND DAY—Wednesday, May 20th.

BALDWIN THEATER, 8 P. M.

The second annual meeting of the Missouri State Association for the Control and Prevention of Tuberculosis was held at Springfield, Mo., in the Baldwin Theater, May 20th, 1908, at 8:30 p. m.

The meeting was called to order by Dr. Geo. Homan, President. The president delivered an address upon "The Every Day Fight Against Consumption." (See page 736.)

The report of the Secretary was read and on motion ordered filed.
(See page 736.)

The annual report of the Treasurer was read as follows:

Contributed before organization.....	\$ 24 85	
Receipts from May 15, '07, to May 15, '08.....	431 16	
Exchange on checks.....	45	
		<hr/>
Deposits, May 15, '07, to May 15, '08.....	\$430 71	
Total receipts.....		\$456 01
		<hr/>
Disbursements prior to organization.....	\$ 24 85	
Disbursements from May 15, '07, to May 15, '08.....	368 41	
Total disbursements.....		\$393 26
Balance in bank May 15th, 1908.....		62 30
Subscriptions due and unpaid.....		75 00
		<hr/>
Total assets.....		\$137 30
<hr/>		
ITEMIZED DISBURSEMENTS.		
Postage	\$ 90 00	
Office expense.....	5 68	
Printing	148 43	
Refunded to Dr. J. M. Allen.....	25 00	
Salaries	93 00	
Traveling expenses.....	6 30	
		<hr/>
Total.....		\$368 41
Amount needed for Traveling Tuberculosis Exhibit.....	\$1,000 00	
Amount subscribed for same.....	225 00	
		<hr/>
Amount needed to complete fund.....		\$ 775 00

Respectfully submitted,

J. HAL. LYNCH, Treasurer.

On motion the report was ordered filed.

Reports from local societies were called for. Dr. J. N. Chastian reported that Bates County had organized on May 11th. Dr. W. S. Allee reported no active work had been done in his county, but that there is considerable interest and that organization would be effected later.

Dr. E. W. Schauffler of Kansas City made a short talk urging the co-operation and help of all in the work and concluded with an appeal for funds for the State Association.

Dr. J. M. Allen of Liberty reported having made a talk before the Northwestern School Association and at Liberty and that he had been invited to Kearney, Trenton and Gallatin.

Dr. Hill suggested that this Association appoint a collector in each county to endeavor to secure funds for the state work.

Dr. John D. Seba of Gasconade County made an appeal for more legislation to help control the disease.

Dr. Fenton B. Turk of Chicago, by invitation of the Chair, suggested that we endeavor to interest the ladies in the work.

Dr. Wm. Porter of St. Louis reported that in that city a great deal had been accomplished by the women through their organizations.

The Chair, by request, gave notice that a meeting of the delegates to the International Congress would be held at the Colonial Hotel on Thursday, May 21st, at 9 o'clock a. m.

A stereopticon lecture was delivered by the Secretary.

At the meeting of the Missouri State Medical Association in 1907, it was voted in the Section on Medicine that the papers there presented in the symposium on tuberculosis be issued in pamphlet form for general circulation, the cost of this work to be met by contributions of 25 cents per capita of the membership, to be collected through the county societies.

Experience showed, however, that this plan could not be made to work effectively and it was abandoned, but not before Dr. J. M. Allen of Liberty, through energetic efforts, had made the collections mentioned below; which statement by his request is printed in full in order that those who contributed might know the disposition made of these funds—the publication of the papers mentioned in reprint form being found not feasible on account of lack of funds. Dr. R. O. Cross was chairman of the committee having the matter in hand.

Dr. Allen's check for the balance was given to the State Anti-Tuberculosis Society on May 21st, to close the account.

DR. J. M. ALLEN, TREASURER.

Liberty, Mo., May 18th, 1908.

1907.

Jan. 28	To	Chariton County Society.....	\$12 00
July 20	"	Salisbury Society.....	5 00
Aug. 13	"	Adair County Society.....	5 00
Oct. 9	"	Atchison County Society.....	3 00
Nov. 16	"	Barry County Society.....	4 00
" 16	"	J. J. Downing (New London), Ralls County.....	3 00
" 16	"	Greene County Society.....	13 50
" 16	"	G. W. Moore (Linn Creek), Camden County.....	25
			<hr/>
			\$45 75

1907.

Nov. 14	By	check given Dr. R. O. Cross.....	\$25 00
Dec. 16	"	check given Rob't O. Cross.....	13 50

1908.

May 18	"	amount in bank to credit of Dr. Allen.....	7 25
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\$45 75

May 18	To	amount in bank to credit of Dr. Allen, Treas.....	\$7 25
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Respectfully submitted,

R. J. NEWTON, Secretary.

THIRD, DAY—Thursday, May 21, 1908.

WOODMAN HALL.

The meeting was called to order by the President at 9:35 a. m. The first order of business being the election of President for 1908-9, nominations for candidates were called for.

Dr. Jackson moved that an informal ballot be taken for nominations. Seconded and carried.

This ballot resulted in the nomination of the following members: W. B. Outten, St. Louis; A. R. Kieffer, St. Louis; N. P. Wood, Independence; R. M. Funkhouser, St. Louis; C. B. Elkins, Springfield; Paul Y. Tupper, St. Louis; Joseph Grindon, St. Louis; Willard Bartlett, St. Louis.

Dr. Jackson moved that the nominating ballot be made the official election ballot and that the House proceed to the election of President.

After three ballots had been cast, Dr. N. P. Wood withdrew his name and asked that the members vote for some one else, it being apparent that the votes for Dr. Wood prevented any one candidate from receiving a majority. On the next ballot Dr. Kieffer was elected.

Nominations for Orator on Medicine were called for and the following gentlemen were nominated: Dr. Robert L. Goodier, of Hannibal; Dr. Wm. Porter, of St. Louis; Dr. R. T. Sloan, of Kansas City.

Dr. Wm. Porter withdrew his name and moved that the rules of the House be suspended and Dr. Goodier be elected by unanimous vote. Seconded and carried.

The election for Orator on Surgery was next in order and the following members were nominated: Dr. Jabez N. Jackson, Kansas City; Dr. Willard Bartlett, of St. Louis; Dr. F. J. Lutz, of St. Louis.

Dr. Jackson asked that his name be withdrawn from the list.

The vote on election of Orator on Surgery resulted in the selection of Dr. F. J. Lutz of St. Louis.

The Secretary announced that the Southwest Medical Association would hold its next meeting in Kansas City in the fall of this year, and read an invitation from that Association for the members of this Association to attend.

The President appointed Drs. Jackson and Pearse a committee to escort the President-elect to the chair.

Dr. Kieffer addressed the Association and thanked the members for the great honor conferred upon him by electing him to the position of president. He said he appreciated the responsibility that rested upon one occupying this high office, and that he would ever consider it the highest mark of distinction that could be placed upon him. He asked the officers and members of the Association to extend to him their cooperation and assistance in the discharge of his duties and promised that he would use his best endeavors to conduct the affairs of the Association along the lines that would ensure a continuance of the high position which the medical profession has attained and which his predecessors in office have so successfully maintained.

On motion the Association adjourned *sine die*.

MEDICAL SECTION.

T. F. LOCKWOOD, M. D., Chairman. GAIL ALLEE, M. D., Secretary.

SECOND DAY—Wednesday, May 20, 1908.

MORNING SESSION.

The Section was called to order at 9 a. m. by the Chairman, Dr. T. F. Lockwood.

The following papers were read and discussed:

"The State's Responsibility to Its Citizens from a Medical Standpoint." By Dr. J. A. McComb, Lebanon.

Discussion: Dr. Vandivert, Bethany; Dr. McComb, closing.

"The Treatment of Visceral Ptosis by Respiratory Exercises." By Dr. Charles Shattinger, St. Louis.

Discussion: Dr. J. M. Allen, Liberty; Dr. B. H. Zwart, Kansas City; Dr. R. T. Sloan, Kansas City; Dr. E. O. Greer, St. Louis; Dr. C. S. Roberts, Joplin; Dr. John Punton, Kansas City; Dr. G. W. Robinson, Nevada; Dr. Shattinger, closing.

"Myocardial Degeneration; Prophylaxis." By Dr. B. H. Zwart, Kansas City.

Discussion: Dr. Good, St. Joseph; Dr. Franklin E. Murphy, Kansas City; Dr. Zwart in closing.

Dr. Johnson, Nevada, not being present, but having forwarded his paper to the Secretary, it was read by title: "The Present Stand and Thought Regarding Opsonins."

"The Passing of an Old Therapy." By Dr. O. L. Peak, Springfield.

Discussion: Dr. R. T. Sloan, Kansas City; Dr. E. W. Schauffler, Kansas City; Dr. W. G. Moore, St. Louis; Dr. Glascock, Kansas City; Dr. Bert Zwart, Kansas City; Dr. Peak in closing.

"Conservatism in Medicine." By Dr. W. L. Brosius, Gallatin.

Discussion: Dr. J. M. Allen, Liberty; Dr. John Punton, Kansas City; Dr. Charles Shattinger, St. Louis; Dr. E. O. Greer, St. Louis; Dr. Brosius closing.

"Lupus Erythematosus." By Dr. Philip Kanoky, Kansas City.

As it was 12 o'clock, discussion was postponed and the meeting adjourned until 1:30 p. m.

AFTERNOON SESSION.

The house was called to order at 1:40 p. m., Dr. Lockwood in the chair.

SYMPOSIUM ON TUBERCULOSIS.

"The Application of Tuberculin to the Eye as a Means of Diagnosis." By Dr. A. W. McAlester, Jr., Kansas City.

"The Roentgen Ray as an Aid to the Diagnosis of Tuberculosis of the Lungs, with Demonstration of Skiagrams." By Dr. Wm. Engelbach and Dr. R. D. Carman, St. Louis.

"The Early Diagnosis of Tuberculosis and Use of Tuberculin in Diagnosis and Treatment." By Dr. E. H. Schorer, Columbia.

"Care of the Consumptive." By Dr. E. W. Schauffler, Kansas City.

"Public Education Against Tuberculosis Infection." By T. F. Lockwood, Butler.

"Universities and Colleges as Factors in the Educational Campaign." By Dr. W. McN. Miller, Columbia.

"Report from the State Sanatorium for Incipient Tuberculosis." By Dr. O. H. Brown, Mt. Vernon.

"Clinical Reports from Mt. St. Rose." By Dr. S. Cameron, St. Louis.

"Responsibility of Boards of Health." By Dr. A. H. Hamel, De Soto.

"Methods in Force and Proposed in St. Louis." By Dr. H. Wheeler Bond, St. Louis.

Discussion: Dr. L. M. Warfield, St. Louis; Dr. John Green, Jr., St. Louis; Dr. Cross, Kansas City; Dr. Dowell, Dr. Porter, Dr. Brosius, Dr. Browning, Los Angeles; Dr. Mills, Webster Groves; Dr. Young, Ozark; Dr. Matthews, Dunklin; Dr. McAlester, Dr. Grindon, Dr. Hamel, Dr. Engelbach; Dr. Miller, closing.

On motion the house adjourned at 5:45 p. m. until Thursday morning.

Thursday, May 21st, 1908.

MORNING SESSION.

The Section was called to order at 11:30, Dr. Lockwood in the chair. On motion the election of officers for the Section was proceeded with. Dr. E. E. Gilmore was nominated for chairman of the Section.

Moved by Dr. Buchanan that the Secretary be instructed to cast the ballot of the Section for Dr. Gilmore. Carried.

Dr. Franklin E. Murphy, Kansas City, was nominated for vice-chairman of the Section.

On motion the Secretary was instructed to cast the ballot of the Section for Dr. Murphy as vice-chairman, which he did and Dr. Murphy was declared elected.

Dr. Norman stated that the Secretary, Dr. Allee, objected to holding the position longer and therefore the nomination of a secretary was in order. Dr. Norman nominated Dr. W. R. Patterson, of Tipton, for secretary.

On motion the secretary cast the unanimous ballot of the Section for Dr. Patterson.

Dr. Franklin E. Murphy moved that as it was near noon the house adjourn.

Dr. Zwart moved that as many of the members expected to leave on the early train, Dr. Turck read his paper before adjournment. Seconded and carried.

Dr. Turck then read his paper entitled "Feeding Experiments on Animals Applied in Surgery and Internal Medicine."

On motion the house adjourned at 12:15 until 1:30 p. m.

AFTERNOON SESSION.

The house was called to order at 1:40 p. m., by the chairman, Dr. Lockwood.

As many papers were yet to be read a motion prevailed postponing all discussion until the section had caught up with the program.

On motion all papers read without discussion were ordered to be published first in the JOURNAL.

The reading of the following papers was then taken up:

"The Examination of the Feces as a Routine Procedure." By Dr. Jesse S. Myer, St. Louis.

"Angina Pectoris." By Dr. Franklin E. Murphy, Kansas City.

"Therapeutics." By Dr. W. A. McKelvey, Minden Mines. Read by title.

"The Physician's Relation to the Pharmacist, Practically Considered." By Dr. J. L. Ormsbee, Springfield. Read by title.

"Prophylaxis of Insanity." By Dr. G. Wilse Robinson, Nevada. Read by title.

"Echinacea Angustifolia." By Dr. J. W. Clark, Cartersville.

"Therapeutics and Its Relation to the Practitioner." By Dr. G. W. Whiteley, Albany.

"Sanitation of Churches, Public Halls, and Assembly Rooms." By Dr. A. H. Vandivert, Bethany.

"Leukemia." By Dr. P. Donohoo, Joplin.

"Cerebro-Spinal Meningitis." By Dr. G. W. Goins, Breckenridge.

"Pneumonia." By Dr. Tinsley Brown, Hamilton.

"Filariasis Nocturna; Two Cases." By Dr. Joseph Grindon, St. Louis.

"Ethics." By Dr. C. W. Watts, Fayette.

"The Doctor in Politics; or, His Civic Responsibilities." By Dr. E. D. Beers, Springfield.

Dr. Grindon moved that a vote of thanks be tendered Dr. Turk in behalf of the Section for his excellent lecture and that a vote of thanks be tendered the Chairman for his services.

On motion the session adjourned at 5:25 p. m.

SURGICAL SECTION.

HERMAN E. PEARSE, M. D., CHAIRMAN. PAUL Y. TUPPER, M. D., SECRETARY.

SECOND DAY—Wednesday, May 20, 1908.

MORNING SESSION.

The Surgical Section was called to order at 9 a. m. by the Chairman, Dr. H. E. Pearse.

Dr. Chester E. Fulton of Springfield read a paper entitled "Stricture of the Oesophagus," which was discussed by Drs. Sheldon of Kansas City, Seba of Bland, Griffith of Kansas City, Funkhouser of St. Louis, Reder of St. Louis, Hertzler of Kansas City, Jesse Meyer of St. Louis.

Dr. Jabez N. Jackson of Kansas City read a paper entitled, "Carcinoma of the Female Breast," which was discussed by Drs. Potter of St. Joseph, Seba of Bland, Clopton of St. Louis, Halley of Kansas City, Griffith of Kansas City and Hill of St. Louis.

On motion of Dr. Griffith of Kansas City, it was ordered that paper No. 52, entitled "Some Operations I Have Done Above the Shoulder

Joint," by Dr. George Halley, he advanced and read at one o'clock in place of the paper of Dr. Jacob Geiger on "Hypernephroma," Dr. Geiger having sent word that he could not be present.

Dr. Willard Bartlett of St. Louis read a paper on "Pathology of Gall Stone Disease."

Dr. Roland Hill of St. Louis read a paper on "Symptoms of Gall Stone Disease."

Dr. C. M. Nicholson read a paper on "Treatment of Gall Stone Disease."

Dr. T. E. Potter of St. Joseph read a paper entitled "Operations on the Gall Bladder."

The papers on gall stone disease and the gall bladder were discussed by Drs. Allen of Kansas City, Binney of Kansas City, Griffith of Kansas City, Beedle of Kansas City, Sheldon of Kansas City, Wallace of St. Joseph, Kieffer of St. Louis, Cordier of Kansas City, Jesse Meyer of St. Louis.

The Section then adjourned to meet again at 1 o'clock.

AFTERNOON SESSION.

The meeting was called to order at 1:30 by the Chairman, Dr. H. E. Pearse.

Dr. Geo. Halley of Kansas City read a paper entitled "Some Operations I Have Done Above the Shoulder Joint," which was discussed by Dr. Blair.

Dr. A. H. Cordier of Kansas City read a paper entitled "Some Clinical, Pathologic and Surgical Phases of Stones in the Kidneys."

The paper by Drs. Bransford Lewis and C. E. Burford of St. Louis, entitled "A Review of 300 Ureter Catheterizations in Their Relation to Diagnosis and Treatment," was read by Dr. Burford.

The paper by Dr. Cordier and the joint paper of Drs. Lewis and Burford, were discussed by Drs. Mark of Kansas City, Lewis of St. Louis, Sheldon of Kansas City.

Dr. H. C. Dalton of St. Louis read a paper entitled "Rupture of the Bladder."

Dr. Gordon A. Beedle of Kansas City read a paper on "Cystocele."

The papers by Drs. Dalton and Beedle were discussed by Drs. Ras-sieur of St. Louis, and Hill of St. Louis.

Dr. W. S. Shirk of Sedalia read a paper entitled "Appendicitis."

The paper by Dr. J. N. Barger of Darlington, entitled "The Preparatory and After Treatment of Surgical Cases," was read by title and referred to the Committee on Publication.

Dr. Malvern B. Clopton of St. Louis read a paper entitled "Typhoid Perforation."

The Secretary read the by-laws proposed for adoption at the last annual meeting. On motion of Dr. Jackson of Kansas City, the by-laws were adopted as read.

The Chairman announced that the next order of business would be the election of a Chairman.

Drs. Moennighoff of Kansas City, and Hill of Springfield, were appointed tellers.

The Chair announced that the first ballot would be an informal ballot. The ballot having been taken and Dr. Tupper of St. Louis having received the highest number of votes, Dr. Griffith of Kansas City moved that the rules be suspended and that the chair cast the ballot of the section for the election of Dr. Tupper for Chairman for the ensuing year. The motion was seconded and carried.

Dr. John Seba of Bland was elected Vice-Chairman. Dr. Willard Bartlett of St. Louis was elected Secretary.

The section then took up the discussion of Dr. Clopton's paper on "Typhoid Perforation," and the following members spoke: Drs. Bartlett of St. Louis, Seba of Bland, Elam of St. Joseph, Sheldon of Kansas City, Vandivert of Bethany, Campbell of St. Joseph.

Dr. O. B. Campbell of St. Joseph read a paper entitled "Pseudomyxoma Peritonei: Report of Case," which was discussed by Drs. Hertzler of Kansas City, Hinchey of St. Louis.

Dr. J. D. Griffith of Kansas City read a paper entitled "Subserous Hernia of the Abdominal Wall," which was discussed by Drs. Kirchner of St. Louis, Hertzler of Kansas City, and Rassieur of St. Louis.

Dr. Fritz J. Moennighoff of Kansas City read a paper entitled "A Brief Consideration of Post-Operative Gas Distention of the Abdomen, With Suggestion for Prevention," which was discussed by Dr. Sheldon of Kansas City.

Dr. Francis Reder of St. Louis read a paper entitled "Remarks on Intestinal Anastomosis," which was discussed by Dr. Rassieur of St. Louis.

The section then adjourned to meet Thursday morning at 9 o'clock.

THIRD DAY—Thursday, May 21st, 1908.

MORNING SESSION.

Owing to the length of the general session of the Association, the meeting did not convene until 11:30, and adjournment was taken to one o'clock.

AFTERNOON SESSION.

The meeting was called to order at 1:00 o'clock by the Chairman, Dr. H. A. Pearse.

Dr. Edmund A. Babler of St. Louis read a paper entitled "The Danger of Permitting Warts and Moles to Grow, Lest They Become Malignant; With Report of Twenty-five Illustrative Cases From the St. Louis Skin & Cancer Hospital.

Dr. Robert Barclay of St. Louis read a paper entitled "How to Recognize Amongst Cases of Deafness Long Abandoned as Hopeless, Those Susceptible of Radical Relief by Tympanic Resection; With Notes From Practice."

Upon motion of Dr. Dorsett of St. Louis, it was ordered that papers be read without discussion until the Section could catch up with its program.

Dr. Arthur E. Hertzler of Kansas City read a paper entitled "The Technic of Hysterectomy."

Dr. Frank Hinchey of St. Louis read a paper entitled "Eversion of the Uterus, With Expulsion of a Large Fibromyoma."

Dr. W. B. Dorsett of St. Louis read a paper entitled "Fibroids of the Uterus Complicated with Pregnancy."

The papers were then discussed by the following: Drs. Stauffer of St. Louis, Hall of Kansas City, Hinchey of St. Louis, Funkhouser of St. Louis, Kirchner of St. Louis, Dorsett of St. Louis, Barclay of St. Louis.

The papers appearing on the program for the afternoon were then taken up.

Dr. W. B. Deffenbaugh of St. Joseph read a paper entitled "Treatment of Fractures of the Shaft of the Femur."

Dr. John D. Seba of Bland read a paper entitled "Personal Experience in Gun-Shot Wounds."

Dr. Louis Rassieur of St. Louis read a paper entitled "Tuberculous Lymph-Adenitis of the Mesenteric Lymph-Nodes."

The paper by Dr. J. F. Reiley of West Plains, entitled "Burn and Treatment," was read by title, and referred to the Committee on Publication.

Dr. Walter C. G. Kirchner of St. Louis read a paper entitled "Infections of the Knee Joint and Treatment."

Dr. W. H. Coffey of Kansas City read a paper entitled "Fissure in Ano."

The Section then took up for discussion Dr. Deffenbaugh's paper on "Treatment of Fractures of the Shaft of the Femur," which was discussed by Drs. Seba of Bland, and Funkhouser of St. Louis.

Dr. Seba's paper on "Gun-Shot Wounds" was discussed by Drs. Kirchner of St. Louis, Deffenbaugh of St. Joseph, Halley of Kansas City, and Hinchey of St. Louis.

Dr. Rassieur's paper on "Tuberculous Lymph-Adenitis" was discussed by Drs. Funkhouser of St. Louis, and Kirchner of St. Louis.

Dr. Kirchner's paper on "Infections of Knee Joint" was discussed by Dr. Seba of Bland.

Dr. Alvah M. Wilson of St. Louis gave "A Demonstration of Simple and Radical Mastoid Operations and Method of Entering the Cranium Through the Temporal Bone for Intra-Cranial Complications of Middle Ear Suppurations," which was discussed by Drs. Barclay and Kirchner, both of St. Louis.

Dr. Seba of Bland made a motion that the section adjourn, which motion was duly carried.

Following is a list of members registered at the Fifty-first Annual Meeting:

Adcock, J. A. B., Warrensburg.
Allee, G. D., Lamar.
Allee, W. L., Eldon.
Allee, W. S., Olean.
Allen, J. M., Liberty.
Altham, A. G., Metz.
Amerland, J. H., St. Louis.
Anderson, H. C., Kansas City.
Andrews, J. P., Marionville.
Armstrong, M. J., Brighton.
Armstrong, A., Springfield.
Babler, E. A., St. Louis.
Barck, C., St. Louis.
Barclay, Robert, St. Louis.
Bailey, E. M., Elkland.
Ball, James M., St. Louis.
Barnes, G. W., Springfield.
Barnett, M., St. Louis.
Bartlett, J. R., Springfield.
Bartlett, Willard, St. Louis.
Barrett, W. H., Harrisonville.
Beatie, W. R., Marshfield.
Beattie, T. J., Kansas City.
Beaty, J. G., Clinton.
Beedle, Gordon, Kansas City.
Berrey, Robert W., Mexico.
Beers, E. G., Springfield.
Benage, J. L., Iberia.
Benway, W. H., Deepwater.
Biggs, M. O., Bowling Green.
Billings, J. M., Lebanon.
Bingham, J. W., Pottersville.
Binnie, J. F., Kansas City.
Bishop, Frances L., St. Louis.
Blair, Edward G., Kansas City.
Bonhannon, W. T., Nevada.
Boulware, T. R., Butler.
Bouline, B. F., Barnett.
Boyd, J. R., Springfield.
Bradley, A. H., St. Louis.
Bradshaw, B. C., Arrow Rock.
Braecklein, W. A., Higginsville.
Bragg, U. G., Huntsville.
Breuer, W. H., St. James.
Brooks, J. M., Golden City.
Broome, G. Wiley, St. Louis.
Brosius, W. L., Gallatin.
Brown, R. A., Stockton.
Brown, F. H., Billings.
Brown, A. C., Moselle.
Brown, Tinsley, Hamilton.
Brown, F. A., Stockton.
Brown, Chas. H., Fair Play.
Brown, O. H., Mt. Vernon.
Brown, C. F., Lamar.
Bruton, L. D., Hartville.
Bruton, J. W., Ozark.
Buchanan, J. R., Nevada.
Burdett, C. W., Branson.
Buren, C. R., Princeton.
Burford, C. E., St. Louis.
Burke, Foster W., Laclede.
Burke, J. R., California.
Burney, N. S., Miller.
Cale, G. W., Jr., St. Louis.
Camp, W. A., Springfield.
Cannon, G. S., Fornfelt.
Cantwell, B. T., Rogersville.
Carbaugh, Eugene, Kansas City.
Carlock, W. I., Everton.
Carlton, C. E., Stoutland.
Carson, Wm., Shelbyville.
Carthrae, Lewis, Corder.
Carter, W. C., Dixon.
Carter, O. N., Brookline.
Chandler, Jno. F., Forest City.
Chandler, S. W., Cassville.
Chastain, E. N., Butler.
Chastain, C. H., Weston.
Chesmore, W. P., Princeton.
Chilton, J. A., Van Buren.
Clairborn, E. G., Decaturville.
Clark, H. R., Pierce City.
Clark, J. W., Carterville.
Clark, J. W., Bois D'Arc.
Clark, W. A., Jefferson City.
Clark, W. J., Conway.
Clopton, M. B., St. Louis.
Cordier, A. H., Kansas City.
Coffelt, T. A., Springfield.
Coffey, W. H., Kansas City.
Cole, H. B., Sedalia.
Conrad, J. W., Albany.
Cordry, H. V., Boonville.
Coon, D. W., Trenton.
Cottingham, I. A., Aurora.
Cotton, F. W., Van Buren.
Cousins, S. W., Morrisville.
Cave, E. S., Mexico.
Cowen, R. M., Springfield.
Cowan, H. K., Ash Grove.
Coy, Wm. A., Springfield.
Cox, Lee, Springfield.
Crabtree, J. W., Butler, R. F. D.
Craig, T. B. M., Nevada.
Crane, T. V. B., Springfield.
Craven, J. H., Marionville.
Cross, Robert O., Kansas City.
Crowson, C. L., Pickering.
Cummings, H. J., St. Louis.
Dallas, L. W., Hunnewell.
Dalton, H. C., St. Louis.
Davis, J. R., Noble.
Davis, J. C. B., Willow Springs.
Deffenbaugh, W. B., St. Joseph.
Deutsch, Wm. S., Crane, St. Louis.
De Vilbiss, E. F., Nevada.
De Vilbiss, Frank, Eugene.
Dewey, J. E., Springfield.
Dillon, Marion, Fairfield.
Dixon, C. H., Holliday.
Doggett, J. C. R., Crane.
Dohohoo, Philip, Joplin.
Doolin, T., Ash Grove.
Dorsett, W. B., St. Louis.
Dorrell, G. B., Republic.
Dowell, G. S., Braymer.
Drake, W. D., Bolivar.
Dryden, U. C., Purdin.
Duckett, T. H., Milford.
Dudley, C. R., Hannibal.
Dunnigan, J. P., Sullivan.

Duncan, J. H., St. Louis.
 Dunoway, L. T., Caplinger Mills.
 Dusenbury, C. T., Monett.
 Eblen, J. L., Alton.
 Edens, E. M., Cabool.
 Edmondson, M. T., Lead Mine.
 Elam, W. T., St. Joseph.
 Elder, A. R., Harrisonville.
 Elkins, C. B., Springfield.
 Elliott, W. H., Bunceton.
 Ellis, Frank B., Garden City.
 Engelbach, Wm., St. Louis.
 Enloe, C., Jefferson City.
 Eslie, W. G., Lawson.
 Ettmueller, G., Jefferson City.
 Evans, E. L., Springfield.
 Evans, E. E., Kosh Konong.
 Evans, C. L., Oregon.
 Evans, A. L., Bonne Terre.
 Fassett, Chas. Wood, St. Joseph.
 Ferguson, J. P., Springfield.
 Ferguson, W. J., Sedalia.
 Fleming, J. B., Aurora.
 Forgrave, H. S., St. Joseph.
 Follin, E. D., Collins.
 Forster, Davis, St. Louis.
 Fortner, B. F., Springfield.
 Foster, T. W., Butler.
 Fox, S. D., St. Louis.
 Frankenburger, J. M., Kansas City.
 Franklin, J. A., Cameron.
 French, U. S., Republic.
 Frendenberger, H. C., Clarksburg.
 Frick, Wm., Kansas City.
 Frick, W. J., Kansas City.
 Fronk, C. E., Maryville.
 Fulbright, J. H., Springfield.
 Fulton, W. L., Winona.
 Fulton, C. E., Springfield.
 Fulton, A. L., Kansas City.
 Funkhouser, Robert M., St. Louis.
 Fuson, F. B., Memphis.
 Farnsworth, D. B., Springfield.
 Glahn, O. P., Palmyra.
 Gibbons, W. H., Clinton.
 Gilmore, E. E., Adrian.
 Glasscock, S. S., Kansas City.
 Good, C. A., St. Joseph.
 Goodier, Robert H., Hannibal.
 Goodrich, E. E., Crane.
 Goodwin, E. J., St. Louis.
 Goins, Geo. W., Breckenridge.
 Gosney, C. W., Kansas City.
 Graham, A. W., St. James.
 Graves, W. H., Wichita, Kans.
 Green, W., Elsey.
 Green, John, Jr., St. Louis.
 Greer, E. O., St. Louis.
 Griffin, S. H., Humansville.
 Griffin, W. L., Lamar.
 Griffin, J. M., Sulphur Springs, Ark.
 Griffith, J. D., Kansas City.
 Grindon, Joseph, St. Louis.
 Gum, Leona J., Lawrenceburg.
 Gum, P. D., Birch Tree.
 Haire, R. D., Clinton.
 Hagler, M. C., Monett.
 Hale, J. M., Dearborn.
 Hall, C. Lester, Kansas City.
 Hall, T. B., Marshall.
 Halley, George, Kansas City.
 Hamel, Geo. F., Kansas City.
 Hamel, A. H., De Soto.
 Hampton, J. R., Clinton.
 Hanks, James, Brashear.
 Harrelson, N. O., Kansas City.
 Harris, H. W., Winchester.
 Harrison, Wm., Chillicothe.
 Harrison, F. J., Farmington.
 Hawkins, A. S., Monett.
 Hawkins, G. W., Triplett.
 Hawkinson, W. O., Roanoke.
 Henson, L., Galena.
 Herbert, T. B., Lebanon.
 Herndon, A. S., Camden Point.
 Hertzler, Arthur E., Kansas City.
 Highfill, M., Marshfield.
 Hill, Howard, Kansas City.
 Hill, H. S., Springfield.
 Hill, Roland, St. Louis.
 Hinchey, Frank, St. Louis.
 Hogeboom, T. W., St. Louis.
 Hogg, Garrett, Ardmore.
 Holmes, W. M., Marionville.
 Homan, George, St. Louis.
 Hope, D. H., Cape Girardeau.
 Horton, W. H., Purdy.
 Huffman, D. M., Crane.
 Hughes, M. R., St. Louis.
 Hulet, R. F., Rich Hill.
 Hunt, L. L., Fair Play.
 Hurwitz, Leon, Joplin.
 Irwin, R. M., Gretna.
 Jackson, C. M., Columbia.
 Jackson, Jabez N., Kansas City.
 James, W. C., Springfield.
 James, R. Myles, Joplin.
 James, Edwin F., Marshfield.
 James, Samuel C., Kansas City.
 Jarvis, N. C., Schell City.
 Jensen, N. N., Florissant.
 Jerard, H., Pleasant Hill.
 Juyer, Wm. J., Webb City.
 Joiner, G. W., Knoxville.
 Jones, W. G., Lincoln.
 Kanoky, J. Philip, Kansas City.
 Kern, B. C., St. Louis.
 Kerr, U. T., Springfield.
 Kieffer, A. R., St. Louis.
 Kieffer, V. B., St. Louis.
 Kirby, B. B., Dadeville.
 Kirchner, W. C., St. Louis.
 Klein, W. C., Kansas City.
 Klinger, T. O., Springfield.
 Knabb, Enoch, Springfield.
 Kreeger, G. G., Lone Jack.
 Lane, M. M., Naylor.
 Latham, N. W., Latham.
 Lester, C. H., Kansas City.
 Lewis, Bransford, St. Louis.
 Lichtenberg, J. S., Kansas City.
 Lindley, W. T., Hamilton.
 Liston, E. H., Balm.
 Loafman, J. E., Bolivar.
 Lockwood, T. F., Butler.
 Lockwood, W. A., Conway.
 Loveland, W. S., Vernon.
 Lucas, H. R., Chaffee.

Lutz, F. J., St. Louis.
 McAlester, A. W., Jr., Kansas City.
 McComb, J. A., Lebanon.
 McComas, A. R., Sturgeon.
 McComb, J. L., Lamar.
 McGann, P. J., St. Louis.
 McHaffie, C. H., Rogersville.
 McLemore, T., Nevada.
 McKinley, W. E., St. Joseph.
 McNutt, W. B. A., Monroe City.
 Madry, A. H., Aurora.
 Major, Herman S., Hardin.
 Mann, F. W., Wellington.
 Manning, D. T., Marshall.
 Mark, Ernest G., Kansas City.
 Martin, J. R., Merwin.
 Mason, W. J., Weaubleau.
 Matthews, L. I., Joplin.
 Matthews, J. C., Springfield.
 Mayfield, M. H., Springfield.
 Meisenbach, A. W., St. Louis.
 Miller, T. C., Ash Grove.
 Miller, W. McN., Columbia.
 Miller, A. B., Macon.
 Miller, R. F., St. Louis.
 Miller, E. H., Liberty.
 Mills, S., Max Creek.
 Mills, R. Walter, Webster Groves.
 Mitchell, Guy B., Forsyth.
 Mitchell, D. L., Cassville.
 Mitchell, L. B., Eldridge.
 Moennighoff, Fritz, Kansas City.
 Moore, Edward, Bloomfield.
 Moore, C. A., Springfield.
 Moore, W. G., St. Louis.
 Moore, G. W., Hannewell.
 Moore, J. G., Mexico.
 Moore, Geo. M., Linn Creek.
 Morfit, John C., St. Louis.
 Mosby, Charles V., St. Louis.
 Moss, Woodson, Columbia.
 Murphy, F. E., Kansas City.
 Myer, Jesse S., St. Louis.
 Nagle, T. E., Billings.
 Neer, C. S., Springfield.
 Neff, R. L., Joplin.
 Nelson, C. S., Springfield.
 Nesbitt, E. P., Sheridan.
 Newberry, F. R., Fredericktown.
 Nicholson, C. M., St. Louis.
 Norberg, Geo. B., Kansas City.
 Norman, J. B., California.
 Noyes, Guy L., Columbia.
 Nuby, J. E., Vanceleve.
 Oldham, J. D., Springfield.
 Oliver, Everett A., Richland.
 Ormsbee, J. L., Springfield.
 Outten, W. B., St. Louis.
 Overholser, M. P., Harrisonville.
 Owen, H. I., Fulton.
 Pare, E. Y., Leeton.
 Parce, A. D., Springfield.
 Parrish, E. E., Memphis.
 Patterson, W. R., Tipton.
 Patterson, W. P., Springfield.
 Peak, O. L., Springfield.
 Pearse, Herman E., Kansas City.
 Pinckard, J. A., Lebanon.
 Pipkin, R. L., Springfield.
 Pipkin, W. D., Excello.
 Poaque, Sam, Clinton.
 Popplewell, W. H., Sheldon.
 Porter, Wm., St. Louis.
 Porter, H. L., Seneca.
 Porter, Allen L., Kansas City.
 Post, W. P., Carthage.
 Potter, T. E., St. Joseph.
 Powell, D. W., St. Louis.
 Prentiss, H., Pleasant Hill.
 Pritchett, P. L., Lebanon.
 Prowell, J. D., Longwood.
 Punton, John, Kansas City.
 Purselley, W. L., Springfield.
 Quigley, B. T., Mound City.
 Rabenan, W. J., Fordland.
 Ralston, J. P., Springfield.
 Rassieur, Louis, St. Louis.
 Rayl, J. E., Aullville.
 Reder, F., St. Louis.
 Redwine, J. T., Doniphan.
 Redman, Spencer, Platte City.
 Reiley, J. F., West Plains.
 Resen, H. H., Conway.
 Rhodes, E. L., Lincoln.
 Rhodes, H. A., Foster.
 Rienhoff, Springfield.
 Roberts, J. L., Kansas City.
 Roberts, J. F., Bolivar.
 Roberts, J. D., Terre Haute, Ind.
 Roberts, C. S., Joplin.
 Roberson, H. M., Kansas City.
 Robinson, G. Wilse, Nevada.
 Robinson, J. F., Nevada.
 Rodman, W. W., Pierce City.
 Rogers, I. N., Springfield.
 Roseberry, E. C., Mt. Vernon.
 Ross, F. E., Springfield.
 Rowe, H. J., Willow Springs.
 Ruyle, Henry J., Springfield.
 Sampson, J. H., St. Joseph.
 Samuels, L., Carrollton.
 Sanders, St. Elmo, Kansas City.
 Sawtell, J. E., Kansas City, Kans.
 Sayers, J. S., Springfield.
 Schaufler, R. M., Kansas City.
 Schaufler, E. W., Kansas City.
 Schlueter, Robert E., St. Louis.
 Schorer, Edwin H., Columbia.
 Schudde, O. N., Sullivan.
 Schuttee, H. C., West Plains.
 Schwald, N. A., Cole Camp.
 Seba, John D., Bland.
 Shankland, Wm. M., Clinton.
 Shattinger, Charles, St. Louis.
 Sheldon, J. G., Kansas City.
 Shelton, M. C., Joplin.
 Sherman, D. U., Springfield.
 Short, John L., Versailles.
 Shy, M. P., Knobnoster.
 Sloan, R. T., Kansas City.
 Smith, Clyn, St. Louis.
 Smith, Wm. M., Springfield.
 Smith, C. W., Keota.
 Smith, J. M., Virginia.
 Smith, M. A., Gallatin.
 Snyder, A. R., Joplin.
 Stevenson, F. S., Aurora.
 Stockwell, B. E., St. Louis.

Stone, A. B., Lamar.	Wallis, J. C., Arkadelphia, Ark.
Stouffer, R. W., Napton.	Wallis, J. R., Clinton.
Summers, W. R., Nangua.	Warfield, L. M., St. Louis.
Swaney, A. G., Lee's Summit.	Wasson, W. B., Nixa.
Tanquary, J. H., St. Louis.	Watts, C. W., Fayette.
Tefft, J. E., Springfield.	Watts, D. S., Ash Grove.
Temple, C. H., Rockford.	Welch, J. C., Salem.
Terry, N. F., Springfield.	Welch, J. F., Salisbury.
Thomas, A. W., Springfield.	Welch, A. J., Kansas City.
Thomas, Earl, Springfield.	Welch, W. A., Callao.
Thompson, J. H., Kansas City.	West, Wm. M., Monett.
Thompson, W. S., Armstrong.	Whipple, N. L., Butler.
Thornburgh, A. H., West Plains.	Whiteley, G. W., Albany.
Thorpe, J. L., Jefferson City.	White, W. L., Chillicothe.
Thraillkill, E. H., Kansas City.	Willier, A. F., Springfield.
Tickle, S. W., Springfield.	Williams, N. C., Springfield.
Tiffany, Flavel B., Kansas City.	Williams, J. H., Hume.
Tinsley, J. H., Orla.	Williams, J. W., Springfield.
Todd, T. B., Richards.	Williams, D. B., Osceola.
Tony, L. A., St. Joseph.	Williams, P. E., Fulton.
Travis, K. W., Weaubleau.	Wingo, T. B., Fulton.
Tucker, C. A., Springfield.	Winn, R. M., Saverton.
Tupper, P. Y., St. Louis.	Wilson, Alvah M., St. Louis.
Turck, Fenton B., Chicago, Ill.	Willson, G. W., Nevada.
Tyndall, M. V., Bethany.	Wright, J. P., Springfield.
Vandeventer, D. O., Christian.	Wood, N. P., Independence.
Van Meter, A., Lamar.	Woodruff, F. E., St. Louis.
Vandivert, A. W., Bethany.	Woods, R. J., Smithville.
Von Gramp, W. A., Iberia.	Woolsey, R. A., St. Louis.
Vosburgh, C. A., St. Louis.	Woody, C. E., Springfield.
Wade, E. E., Clones.	Young, J. O., Ozark.
Walker, G. D., Eldon.	Zwart, B. H., Kansas City.
Walker, G. S., Flemington.	Total, 471.
Wallace, Chas. H., St. Joseph.	

REPORT OF THE JUDICIAL COUNCIL.

To the President and Members Missouri State Medical Association:

The affairs of the State Association, as they have been called to the attention of the Chairman of the Judicial Council, are becoming more complicated from year to year and should be given that business-like attention which is necessary to carry out the great objects of our Association, and without which causes for complaint arise constantly to the detriment of the Association. Immediately upon the adjournment of the Association last year, the Secretary-elect was confronted with the necessity of proving his eligibility to the office which the Council had conferred upon him. The question was raised that he had not been a member of the State Association for two years and therefore, under the constitution, he was not eligible. Your Chairman secured from the Secretary of the Jackson County Medical Society and from the Secretary of the Cole County Medical Society the certificates of Dr. McAlester's continuous membership and therefore his eligibility.

The Chairman has also undertaken to request from the Secretary a detailed report of the possessions of this Association in his custody and a similar account should be demanded from year to year in order that the Association may know just what and where its belongings are

and therefore prevent the necessity for such mistakes as occurred during the past year which required much correspondence and no small amount of annoyance.

As the custodian of the official bond of the Treasurer, your Chairman begs leave to report that immediately upon the adjournment of last year's session, Dr. Welch executed a proper bond in the sum of \$4000, which is now in my possession.

During the past year the Executive Committee after proper conference with the President of the Association, filled the vacancy in the 3d Councilor District by the appointment of Dr. G. W. Whitely of Albany, in lieu of Dr. Walter E. McKinley, who had resigned to accept the position of assistant physician at State Hospital No. 2 at St. Joseph.

In the 23d District the committee appointed Dr. T. C. Allen of Vernon, Mo.

In the 25th District the vacancy caused by the resignation of Dr. Frank Lee Keith was filled by the appointment of Dr. Frank Harrison of Farmington.

I would respectfully suggest that in the 6th District Dr. Grim be appointed temporarily in the place of Dr. H. Jurgens, who will be absent for a prolonged period and will not be able to serve, but expresses a willingness to assume the duties of the Council upon his return.

There was also referred to your Chairman during the year a matter for which no provision is made in our constitution or by-laws, and concerning which the Association should take some definite action. The importance of having the Missouri State Medical Association numerically as completely represented in the House of Delegates of the American Medical Association as our number entitles us to, is so evident that no argument is required to emphasize the responsibility of those who accept election to so important and dignified a place. Immediately preceding the meeting of the American Medical Association, one of the delegates elected at Jefferson City placed his blank proxy in the hands of a member of the St. Louis Medical Society, who referred the matter to the Chairman of the Judicial Council. Your constitution makes no provision by which the Council is authorized to fill vacancies in the House of Delegates of the American Medical Association. The alternate-elect takes the place of the delegate in his absence. Both the President of this Association and the alternate in this instance were notified that the delegate-elect would not be at his post of duty and that it was the duty of the alternate to take his place. At the meeting of the Association the alternate did not attend and the records show that some one not elected by this Association acted in his stead. The explanation given by the alternate to the Chairman of the Judicial Council was that by an agreement between himself and the delegate, one was to attend one year and the other another year; with the result that neither discharged the duties of his office for which, as you recall, there was quite a spirited contest. It seems that gentlemen elected to office

should discharge the duties which they assume or refuse an election, and when they fail to carry out the obligations assumed, provision should be made for substituting others in their places.

I wish also to call the attention of the Council and the House of Delegates to a suggestion made by the Council of the St. Louis Medical Society concerning the credit which might be given to those joining the various county societies in the fall of the year. We have recommended to the component county medical societies that the dues paid for members elected on and after October the first of any year shall be credited as dues for the current and for the subsequent year, and that the JOURNAL of the State Medical Association shall be sent to them from the time that notification has been given of their proper election. This suggestion has been transmitted to the committee charged with the revision of the constitution of the State Association and they have been requested to incorporate this provision in the organic law of the Association.

This Association has now existed under its reorganized form for four years. The wisdom of adopting the new plan of organization has been shown by the increased number of physicians who have secured membership in the State Association, by the increased fellowship and by the better understanding of each other on the part of the physicians throughout the state, by the recognition on the part of all concerned of the powerful influence which this Association can wield and by the hearty co-operation of all the doctors of Missouri in closing up our ranks and presenting a solid phalanx which has great power for good. But organization is only a means. We must now begin to demonstrate the usefulness of our organization to the physicians and to the state and in order to do this, I desire to submit for your discussion and action the following three directions in which the organization should make itself felt:

First: The matter of protecting the people—and of them we are a part—against encroachments by legislation through those influences which from selfish motives or from a desire to experiment, will endeavor to enact medical legislation unfavorable to the best interests of the people. As you know, the legislative council to the Legislative Committee of the American Medical Association has a representative from each state. In addition, the state is supposed to be represented by a member of the Legislative Committee from each county. All of these to work in harmony with the Committee on Legislation and Public Policy of this Association. There is much work to be done by your Committee on Legislation and Public Policy, and whilst the means and methods by which this is to be accomplished cannot be made a subject for general public discussion, yet it will not be improper to say that your Committee on Legislation should have placed at its disposal such funds as will enable them efficiently to carry out the purposes for which the committee is established.

In the second place: This Association should make provision to carry out the recommendation of President Allee, according to which

the power and influence of this Association should be thrown in favor of the member who may be threatened and harrassed by a malpractice suit. The experience of other states has demonstrated that this can be done with comparatively a small outlay of money, at least in the beginning, and I would respectfully recommend that provision be made by the adoption of such additions to our constitution and by-laws as will give to the members an additional return for their annual contribution and will tend to further solidify and strengthen the medical profession of this state.

Finally: Never before in the history of medicine has such a general onslaught been made upon a disease, the ravages of which are so appalling as to beggar description. With our knowledge of the cause of tuberculosis and of the means for preventing its spread, and with an interested public sentiment ready to co-operate with us in that mission, which has always been the boast of the profession of medicine, we have opened up to us an exceptional field of usefulness. Last year you gave expression of the deep interest which this Association takes in the crusade against tuberculosis by organizing a State Association for combating the "white plague." During the year this organization has performed much good work. Much still remains to be done, and I am mistaken in the intention of the medical profession of this state if this Association does not set aside a dignified part of its treasury to assist in spreading among the people of this state a knowledge of tuberculosis, its causes, the recognized methods of its treatment and its prevention.

In connection with this last matter I wish to bring to your attention a subject which caused considerable agitation and some annoyance during the past year. You will recall that in the medical section of the Association, a resolution was passed which created a committee for the purpose of condensing, printing and distributing the symposium on tuberculosis among the people of this state. Unfortunately the section neglected to present the matter to the House of Delegates, which alone has power to order the expenditure of money, and when the committee appointed, of which Dr. Cross of Kansas City, is the chairman, applied to the Judicial Council for a warrant upon the treasury appropriating \$400.00 to the purposes of the committee, your Executive Committee was compelled, under the constitution, to refuse to authorize the expenditure; although the Executive Committee was most anxious to carry out the wishes of the medical section and although the members of the House of Delegates, with but few exceptions, requested the committee to appropriate the money.

I would also call your attention to an association which has been formed under the auspices of the American Medical Association of the editors of the state medical journals. This organization seems to me to be so important as a means for bringing into closer touch the various state medical organizations, it will help to make better our journals,

it might assist in placing them upon a better financial basis, and like all community of interests, will tend to assist us in many directions.

It seems to me that this Association should authorize the editor of its journal to become our official representative in this organization, and following in the wake of the practice of other states, we should defray his actual expenses whilst in attendance upon the meetings.

F. J. LUTZ, Chairman.

SECRETARY'S REPORT.

To the President and Members of the Missouri State Medical Association:

I have the honor to submit the following report: I assumed the office of Secretary, June 1st, 1907. The following articles, the property of the Association were received from Dr. C. M. Nicholson:

1. A card-index of the physicians in the state, without reference to membership in the Association.

2. One book of the minutes of the Association from 1867 to the forty-first meeting.

3. A copy of the transactions of the Association for 1902, and one for 1903.

4. A lot of letters received by the Secretary for the past three years.

5. A letter press.

6. Remington typewriter, Number 6, serial Number 37,290, and a folding table for same.

7. The seal and articles of incorporation. To this has been added a card-index of the members for 1908, both an alphabetical index and an index by counties. The typewriter being old and out of repair, was exchanged for a new Underwood No. 5, No. 181,398.

An effort is now being made to compile the missing records from the JOURNAL files; and if any member has a complete file of the transactions, we would appreciate it very much if he would present them to us.

With the approval of the Executive Committee, a handsome lithographed certificate of membership has been mailed each member on receipt of his dues for this year. The stubs, filed from these, constitute an alphabetical index of the membership. I believe the certificates are appreciated by the members and will be a means of increasing our membership.

A card-index of the members by counties has been made. Duplicate cards have been furnished the *Journal* of the American Medical Association, and the county secretary. These cards give the name, address, county, certificate number and the date dues were paid. While adding materially to the work of the office, they have reduced errors to a minimum and have met the hearty approval of the American Medical Association, it being the most satisfactory method of making reports.

The membership, as obtained from the JOURNAL, June 1st, 1907, was 2395. This has since been increased for the remainder of the year by 157, making a total of 2552 paid March 31, 1908. This year we start with a paid up membership of 2471. Considering the fact that the state was thoroughly canvassed by solicitors of the American Medical Association the latter part of 1906, to the spring of 1907, we have made a very satisfactory gain, and, through the organized efforts of the county secretaries we hope to have every eligible physician in the state a member by 1909, as a number of the counties now have.

The county secretaries have been organized with the objects, that we may cultivate closer relationship between the component societies; to establish improved and more uniform methods of conducting both the business and the meetings; to develop the best means of increasing and holding interest in the work, and of increasing membership; and to promote the general welfare of the organized profession of the state.

Arrangements were made with the Washington University, St. Louis University, Missouri University and the University Medical College of Kansas City, to have a representative of the Association address the students of these institutions on medical organization. We hope to interest the students of all the schools in the Association.

Councilors have, from time to time, been notified of any special condition arising in their districts, and one month before this session, letters were sent each Councilor showing the exact standing of every member and society in his district.

Iron, Wayne, Ripley, Pulaski and Carter-Shannon Counties failing to report for last year, have been reorganized. Taney County has been organized by Dr. T. A. Coffelt. They have nine members.

The membership containing all counties will be reported in the June issue of the JOURNAL.

I have tried to conduct the office on a business basis. The correspondence and records are here for your inspection.

In the matter of recommendations, I respectfully refer to the report of our President.

Respectfully submitted,

A. W. McALESTER, JR., Secretary.

REPORT OF THE PUBLICATION COMMITTEE.

Your Publication Committee begs leave to submit the following report:

All advertisements that have appeared in the JOURNAL during the year were carefully read by each member of the committee before inserting them in the JOURNAL. In many instances modifications in the wording of the advertisements were suggested by the committee, which

suggestions the advertisers promptly accepted; several advertisements were refused altogether. Every advertisement of a medicinal character has the formula printed in the advertisement.

The following analysis shows what has been published in the JOURNAL during the year: Original articles, 65; editorials, 47; county society notes, 131; miscellaneous matter, including book reviews, lists of officers of the Association and of affiliated county societies, news items, obituary notices, correspondence, etc., totaling 178 items; the roster of membership and the program for this meeting.

All papers read at the annual meeting of 1907 have been published, and in addition 19 papers read before affiliated county societies. A number of other papers from county societies were received for publication in the JOURNAL, but they have not appeared for the reason that your committee was limited to 64 pages of reading matter in each issue. This rule was violated only in the May, 1908, issue in order to publish the roster of membership. This issue contains 86 pages.

The cost of publishing the JOURNAL is as follows: June, 1907, \$204.70; July, 1907, \$109.50; August, 1907, \$123.50; September, 1907, \$112.95; October, 1907, \$102.00; November, 1907, \$128.50; December, 1907, \$127.00; January, 1908, \$112.00; February, 1908, \$140.15; March, 1908, \$123.85; April, 1908, \$117.98; May, 1908, \$175.92.

Extra copies were mailed to non-members and members who have lapsed in the payment of their dues in November and December, 1907, and February, March, April and May of this year, with the hope that they would in this way be induced to join local societies, if not members, or reinstate themselves by payment of dues. This explains why the cost of publishing the JOURNAL in some months exceeded the contract price of \$1200.00 per annum.

Your committee is convinced that the publication of a greater number of papers read by members of affiliated societies at the regular meetings of these societies, would add materially to the value of the JOURNAL as a medium of communication between the members. Such papers, however, should have the endorsement of the society before being sent to the JOURNAL for publication. In order to do this it is necessary that the JOURNAL should be enlarged and therefore your committee recommends that the Publication Committee be authorized to increase the size of the JOURNAL to 80 pages of reading matter in each issue whenever manuscript to fill that number of pages is in the hands of the editor; or such part of 80 pages as may be on hand. The large number of papers to be read at this meeting is an added reason for increasing the size of the JOURNAL. This increase will also allow of the publication of more matter bearing on the work of other medical associations and organized bodies, whose objects are in harmony with the objects of the organized medical profession. The additional cost of publishing an 80-page journal will be \$38.60 monthly.

Those of you who have observed the trend of the editorial matter appearing in the JOURNAL, have doubtless noticed that the editor has

endeavored to direct attention to those problems which confront us as an organized medical association. Your committee believes that this policy should be continued.

Respectfully submitted,

M. B. CLOPTON,

M. C. SHELTON,

W. B. DORSETT, Chairman,

The Committee.

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK.

To the President and Members of the Missouri State Medical Association:

In order to secure general representation on the scientific program, your Committee on Scientific Work first wrote to the secretary of each affiliated county society, asking for the names and addresses of those members who would contribute good papers for the meeting. A personal letter was then addressed to each of these. As a result, the titles of 104 papers were submitted to the committee in time to be included in the final program, and will be read in the Medical and Surgical sections.

In the March and April numbers of the Journal of the State Association, the preliminary program was published. This included the titles of papers already sent in, and also the names of those members promising papers. In the May Journal the final program was published. 3500 copies of the final program consisting of 16 pages was published in pamphlet form. Of these 2868 were mailed to members over the state, 632 being retained for distribution at the annual meeting. The total cost of printing, mailing, etc., was \$122.43—the items of which are as follows:

3500 programs and envelopes.....	\$76.50
Printing 2868 letters to accompany program, folding, inserting same, etc.	14.25
Addressing envelopes	3.00
2868 one cent stamps.....	28.68
	<hr/>
	\$122.43

In accordance with the intent of the Association, the Greene County Medical Society was not permitted to bear any portion of the expense incident to the publication and distribution of the program, hence, the expenses are somewhat greater than heretofore.

The committee desires to acknowledge with appreciation the valuable assistance rendered them in their work by Dr. E. J. Goodwin of St. Louis.

Respectfully submitted,

T. F. LOCKWOOD,

H. E. PEARSE,

GAIL ALLEE,

P. Y. TUPPER,

Committee.

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

To the President and Members Missouri State Medical Association:

I beg to submit herewith a brief report of the meeting of the House of Delegates at the Fifty-eighth Annual Meeting of the American Medical Association, held at Atlantic City, June, 1907.

The House of Delegates convened in the Hotel Traymore and was called to order by the President, Dr. William Mayo, who after the preliminary report of the Committee on Credentials and the minutes of the Fifty-seventh Annual Session, delivered the President's Address. He paid a glowing tribute to the *Journal*, characterizing it as the greatest medical periodical the world has ever known. He commended the report of the Committee on Medical Education and commended particularly the work of the Council on Pharmacy and Chemistry. The report of the General Secretary, Dr. George H. Simmons, was then heard. This report, in detail, has been sent the members of the Association. Of the number receiving the *Journal* and the percentage of physicians in each state who receive the *Journal* it is of interest to note that among the states Missouri stands twenty-fourth in the list, with forty per cent. Of the physicians in the state readers of the *Journal* Kansas appears twelfth, with forty-eight per cent. receiving the *Journal*. Kansas, we may say, has 2300 physicians, Missouri has 5900 physicians.

The greatest gain in members has been in New York. This state shows a net gain of 1,089 members, thirty-two and a half per cent. of her physicians take the *Journal*. Missouri comes next with a gain of 929 members. Of much interest was his report upon the medical directory. The report of the Council on Medical Education showed much painstaking work and was very well received.

On the second day of the session Dr. McCormack read the Report of the Committee on Organization. This report summarized the work of the past year and showed increasing strength in organization. In considering branch associations seven branches were suggested. The names suggested for one of these is, "Mississippi Valley and Lake Branch," made up of the states Ohio, Indiana, Illinois, Missouri, Kentucky, Michigan and West Virginia. Another branch suggested is to be called "Southwestern Branch," comprising the states Texas, Oklahoma, Kansas, Colorado, New Mexico and Arizona. He stated that the organization and the grouping of states shall be determined by the various states.

This committee recommends that as these branch associations are formed the meetings be held in the fall.

The Committee on Hygiene and Public Health endorsed the recommendation to establish a Board of Public Instruction, recommending that the question of whether articles be unsigned by the authors be

submitted to the House of Delegates for a vote. This endorsement proved pleasing to the St. Louis contingent. An incident of the meeting was the discussion upon the "Army Canteen Bill." This discussion was most spirited and enlivened the tedium of routine business. It was the opinion of a large majority of the delegates that this matter belongs entirely outside the business of the American Medical Association, and that it is best not to attempt to interfere with legislation that belongs outside of that which pertains to medicine.

Communications were read from the Southern Medical Association and the Southwestern Medical Association. No action was taken upon these communications.

In regard to the Anesthetic Commission, asked for in a resolution submitted by the section on Surgery and Anatomy, the Reference Committee on Sections and Section Work suggested that the adoption of this resolution at this meeting would be inexpedient.

A resolution endorsing the efforts of the Surgeon-General to secure legislative authority for the employment of dentists in the United States Navy was adopted.

A resolution looking toward the prohibiting of the employment of the Roentgen ray by unqualified persons was introduced. Upon motion this was referred to the Reference Committee on Hygiene and Public Health.

At this meeting Missouri was represented by W. B. Dorsett, Chairman of Section Obstetrics and Diseases of Women; O. B. Campbell, St. Joseph; F. R. Anthony, Maryville; John Green, Jr., St. Louis, and Franklin Murphy, Kansas City.

Respectfully submitted,

FRANKLIN E. MURPHY, M. D.

TREASURER'S ACCOUNT WITH THE MISSOURI STATE MEDICAL ASSOCIATION, 1907-8.

CASH ACCOUNT.

RECEIPTS.

1907.	
May 15, Amount forwarded.....	\$5,497 83
June 4, Sub. Journal.....	85
1908.	
May 21, Dr. E. J. Goodwin.....	75
" 15, Interest on daily bal.....	118 85
Adair County.....	34 00
Andrew County.....	30 00
Atchison County.....	34 00
Audrain County.....	44 00
Berry County.....	38 00
Barton County.....	26 00
Bates County.....	50 00
Benton County.....	30 00
Bollinger County.....	.....
Boone County.....	56 00
Buchanan County.....	164 00
Butler County.....	40 00
Caldwell County.....	62 00
Callaway County.....	32 00
Camden County.....	.....
Cape Girardeau County.....	46 00
Carroll County.....	50 00
Carter-Shannon County.....	28 00
Cass County.....	56 00
Cedar County.....	14 00
Chariton County.....	52 00
Christian County.....	18 00
Clarke County.....	12 00
Clay County.....	52 00
Clinton County.....	18 00
Cole County.....	52 00
Cooper County.....	46 00
Crawford County.....	.....
Dade County.....	.....
Dallas County.....	.....
Daviess County.....	14 00
DeKalb County.....	24 00
Dent County.....	22 00
Douglass County.....	.....
Dunklin County.....	2 00
Franklin County.....	46 00
Gasconade County.....	30 00
Gentry County.....	24 00
Greene County.....	124 00
Grundy County.....	16 00
Harrison County.....	32 00
Henry County.....	66 00
Hickory County.....	.....
Holt County.....	36 00
Howard County.....	36 00
Howell County.....	34 00
Iron County.....	12 00
Jackson County.....	702 00
Jasper County.....	90 00
Jefferson County.....	26 00
Johnson County.....	52 00
Knox County.....	26 00
Laclede County.....	40 00
LaFayette County.....	54 00
Lawrence County.....	56 00
Lewis County.....	32 00
Lincoln County.....	18 00
Linn County.....	60 00
Livingston County.....	36 00
McDonald County.....	.....
Macon County.....	36 00
Madison County.....	24 00
Maries County.....	.....
Marion County.....	56 00
Mercer County.....	18 00
Miller County.....	24 00
Mississippi County.....	26 00
Moniteau County.....	40 00
Monroe County.....	28 00
Montgomery County.....	.....
Morgan County.....	16 00
New Madrid County.....	.....
Newton County.....	36 00
Nodaway County.....	56 00
Oregon County.....	.....
Osage County.....	.....

Ozark County.....	.....
Pemiscot County.....	.....
Perry County.....	.....
Pettis County.....	\$ 94 00
Phelps County.....	30 00
Pike County.....	22 00
Platte County.....	42 00
Polk County.....	26 00
Pulaski County.....	18 00
Putnam County.....	16 00
Ralls County.....	22 00
Randolph County.....	34 00
Ray County.....	48 00
Reynolds County.....	.....
Ripley County.....	16 00
St. Charles County.....	52 00
St. Clair County.....	16 00
St. Genevieve County.....	22 00
St. Francois County.....	32 00
St. Louis County.....	58 00
St. Louis City.....	1,556 00
Saline County.....	34 00
Schuyler County.....	10 00
Scotland County.....	22 00
Scott County.....	42 00
Shannon County.....	.....
Shelby County.....	38 00
Stoddard County.....	40 00
Stone County.....	.....
Sullivan County.....	36 00
Taney County.....	18 00
Texas County.....	.....
Vernon County.....	66 00
Warren County.....	.....
Washington County.....	.....
Wayne County.....	12 00
Webster County.....	40 00
Worth County.....	14 00
Wright County.....	.....
	\$11,249 28

May 15, 1908, bal. on hand...\$ 6,903 50

DISBURSEMENTS.

1907.			
May	15	E. J. Goodwin, salary, 7-18 to 8-18, '06; 4-18 to 5-18, '07.....	\$ 100 15
"	15	E. J. Goodwin, post- age	19 09
"	15	Interstate Med. Jour. Co., printing May No. of Journal.....	231 03
"	15	Interstate Med Jour. Co., printing pro- grams	23 00
"	16	Dr. C. M. Nicholson, stamps	39 63
"	16	Dr. Frank J. Lutz, expense incurred for Association	80 00
"	16	Dr. B. M. Hypes, traveling expenses..	6 15
"	16	Dr. L. W. Dallas, traveling expenses..	5 15
"	16	Dr. C. W. Reagan, traveling expenses..	4 15
"	16	Dr. W. B. Dorsett, traveling expenses..	5 90
"	16	Dr. J. R. Buchanan, traveling expenses..	1 15
"	16	Dr. A. R. Snyder, traveling expenses..	6 65
"	16	Dr. C. H. Shuttee, traveling expenses..	3 60
"	16	Dr. J. D. Brummall, traveling expenses..	7 15
"	16	Dr. W. E. McKenley, traveling expenses..	31 95

May	16	Dr. G. Ettmoler, traveling expenses.....	\$ 5 40			salary, Oct. 18 to Nov. 18.....	\$ 100 15
"	16	Dr. W. T. Ealem, traveling expenses..	6 15	Nov.	23	Interstate Med. Jour. Co., printing Nov. No. of Journal.....	128 65
"	16	Dr. J. F. Welch, postage, exp. and stenog.	100 00	"	26	Dr. Helm, soliciting members	9 15
"	16	Dr. E. H. Miller, traveling expenses..	9 75	Dec.	9	Dr. A. W. McAlester, salary and expense..	25 15
"	19	St. Louis Button Co..	52 05	"	16	Modern Pt. Co.....	3 40
"	19	Dr. J. C. Mufet, com. expenses	31 65	1908.	2	Union Bank Note Co.	60 15
"	20	Dr. E. H. Pearse, com. expenses	32 76	Jan.	2	Interstate Med. Jour. Co., printing Dec. Journal	127 15
"	20	Dr. Edith Strong, stenog. salary.....	40 15	"	2	Dr. E. J. Goodwin, salary, Nov. 18 to Dec. 18.....	100 15
"	31	J. E. Dunn, agt. Bond Company	20 00	"	2	J. H. Harris, P. M. K. C. S. envelopes...	65 67
June	3	F. T. Gray, report surgical section.....	60 15	"	2	Hamilton Pt. Co.....	2 40
"	13	Square Storage, tras. Company	5 65	"	8	Dr. A. W. McAlester, salary and trav. exp.	40 15
"	15	Dr. C. H. Roney, soliciting members....	64 15	"	17	Business Syst. store.	4 35
"	15	J. Brown Storage Co.	5 65	"	25	Interstate Med. Jour. Co., printing Jan. No. of Journal.....	112 00
"	15	Spalding Stat. Co.....	1 15	"	27	Dr. E. J. Goodwin, salary, Dec. 18 to Jan. 18.....	100 00
"	23	Interstate Med. Jour. Co., printing June No. of Journal.....	204 85	Feb.	4	Dr. A. W. McAlester, salary	25 00
"	23	Dr. E. J. Goodwin, salary 'May 18 to June 18.....	100 15	"	13	Hamilton Pt. Co.....	6 60
"	23	Modern Pt. Co.....	3 15	"	27	Dr. E. J. Goodwin, salary, Jan. 18 to Feb. 18.....	100 00
"	23	Dr. A. W. McAlester, salary, sec'y.....	40 10	Mar.	5	Dr. A. W. McAlester, salary and other exp.	30 50
July	23	Interstate Med. Jour. Co., printing July No. of Journal.....	109 65	"	5	Remington Type-writing Co.....	1 40
"	23	Dr. E. J. Goodwin, salary June 18 to July 18.....	100 15	"	5	Mo. Embossing Co.....	17 00
"	23	Hallman Pt. Co., 4M envelopes	4 15	"	5	Interstate Med. Jour. Co., printing Feb. No. of Journal.....	140 15
"	23	Mo. Embossing Co., 5000 letter heads....	45 15	"	21	Fleming Printing Co.	14 50
"	26	Modern Pt. Co.....	10 45	"	5	Leson-Gould Co.....	1 75
"	26	Graham Paper Co.....	8 15	April	3	Dr. E. J. Goodwin, salary, Feb. 18 to March 18.....	100 00
Aug.	9	Dr. A. W. McAlester, salary	27 05	"	3	Interstate Med. Jour. Co., printing March No. of Journal.....	123 85
Sept.	7	Dr. E. J. Goodwin, salary, July 18 to Aug. 18.....	100 15	"	9	Dr. A. W. McAlester, salary and other exp.	33 00
"	7	Remington Type-writing Co.....	1 65	"	9	Dr. C. M. Shelton, traveling expenses..	33 60
"	7	Dr. A. W. McAlester, salary and expense..	28 15	"	9	Underwood Typewriting Co.....	30 00
"	7	Interstate Med. Jour. Co., printing August No. of Journal.....	123 65	"	9	Dr. H. E. Pearse, traveling expenses..	43 15
Oct.	1	Interstate Med. Jour. Co., printing Sept. No. of Journal.....	113 10	"	30	Mo. Embossing Co., 1000 letter heads....	6 00
"	1	Dr. E. J. Goodwin, salary, Aug. 18 to Sept. 18.....	100 15	"	30	Dr. E. J. Goodwin, salary, March 18 to April 18.....	100 00
"	8	Dr. A. W. McAlester, salary and expense..	29 65	May	5	Dr. A. W. McAlester, salary and other exp.	34 65
Nov.	7	Dr. Edith Strong, stenog. salary.....	60 15	"	15	Dr. Frank J. Lutz, postage, telephone, R. R. fare, etc.....	61 72
"	8	Dr. E. J. Goodwin, salary, Sept. 18 to Oct. 18.....	100 15	"	15	Interstate Med. Jour. Co., printing April No. of Journal.....	117 98
"	8	Dr. A. W. McAlester, salary, etc.....	35 15				\$ 4,345 78
"	8	Interstate Med. Jour. Co., printing Oct. No. of Journal.....	102 15	Balance			6,903 50
"	20	Dr. E. J. Goodwin, duplicating cir. letters	1 90				\$11,249 28
"	23	Dr. E. J. Goodwin,				J. FRANKLIN WELCH, M. D., Treasurer.	

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Missouri State Medical Association

ORGANIZED 1849—RE-ORGANIZED 1867

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 Gashwiler, J. S., Novinger, Mo.
 Grim, E. A., Kirksville, Mo.
 Grim, E. C., Kirksville, Mo.
 Hall, W. S., Novinger, Mo.
 Hanks, James, Brashear, Mo.
 Martin, J. W., Kirksville, Mo.
 Martin, W. W., Sperry, Mo.
 McCambridge, Patrick H., Adair, Mo.
 McConnell, J. L., Connelssville, Mo.
 Munn, W. E., Pure Air, Mo.
 Noe, Lafayette, Connelssville, Mo.
 Nunn, J. C., Novinger, Mo.
 Quinn, E. S., Kirksville, Mo.

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 Best, W. W., Bolckow, Mo.
 Bever, S. S., Amazonia, Mo.
 Carpenter, E. H., Helena, Mo.
 Damour, F., Bolckow, Mo.
 Danley, W. E., Avenue City, Mo.
 Hushor, J. C., Rosendale, Mo.
 Jeffries, C. O., Savannah, Mo.
 Kelley, R. R., Amazonia, Mo.
 Laney, R. L., Avenue City, Mo.
 Martin, W., Savannah, Mo.
 Miles, B. E., Fillmore, Mo.
 Parks, D. C., Fillmore, Mo.
 Sutherland, J. C., Savannah, Mo.

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 Chamberlain, O. M. C., Rockport, Mo.
 Hedgpeth, J. H., Rockport, Mo.
 Holliday, J. A., Tarkio, Mo.
 Hunter, James A., Fairfax, Mo.
 Hunter, O. A., Fairfax, Mo.
 Lewis, E. A., Rockport, Mo.
 Lott, G. W., Westboro, Mo.
 McMichael A., Rockport, Mo.
 Postlewaite, J. A., Tarkio, Mo.
 Safford, W. G., Tarkio, Mo.
 Settles, C. F., Rockport, Mo.
 Strickland, W. R., Rockport, Mo.
 Taylor, E. P., Fairfax, Mo.
 Waugh, C. M., Tarkio, Mo.
 Whitford, E. P., Westboro, Mo.

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Alford, R. Lee, Vandalia, Mo.
 Berry, W. R., Mexico, Mo.
 Carnett, W. E., Worcester, Mo.
 Cave, E. S., Mexico, Mo.
 Coil, P. E., Mexico, Mo.
 Cooper, J. Q., Rowena, Mo.
 Crawford, M. E., Mexico, Mo.
 Douglass, W. H., Benton City, Mo.

Flint, J. F., Molino, Mo.
 Gibbs, R. T., Mexico, Mo.
 Griffin, Fred, Mexico, Mo.
 Lofton, E. A., Laddonia, Mo.
 McCall, W. K., Worcester, Mo.
 McFarland, W. W., Mexico, Mo.
 Moore, Joe, Mexico, Mo.
 Parrish, J. C., Vandalia, Mo.
 Rodes, N. R., Mexico, Mo.
 Rodes, W. R., Mexico, Mo.
 Rothwell, C. A., Mexico, Mo.
 Strode, R. O., Mexico, Mo.
 Toalson, G. F., Mexico, Mo.

BARRY COUNTY.

Bailey, W. T., Cassville, Mo.
 Chandler, S. W., Cassville, Mo.
 Dusenberry, C. T., Monett, Mo.
 Hagler, M. C., Monett, Mo.
 Hawkins, A. S., Monett, Mo.
 Horton, W. H., Purdy, Mo.
 Jones, Alva, Monett, Mo.
 Leith, L. R., Butterfield, Mo.
 Miller, D. E., Monett, Mo.
 Mitchell, D. L., Cassville, Mo.
 Mitchell, John, Purdy, Mo.
 Newman, S. A., Cassville, Mo.
 Northcutt, Geo. J., Seligman, Mo.
 Northcutt, L. B., Washburn, Mo.
 Pound, J. B., Shell Knob, Mo.
 Russell, J. M., Monett, Mo.
 Searcy, W. B., Exeter, Mo.
 Trumbower, M. R., Monett, Mo.
 West, W. M., Monett, Mo.

BARTON COUNTY.

Allee, G. D., Lamar, Mo.
 Brooks, J. M., Golden City, Mo.
 Brown, C. F., Lamar, Mo.
 Coleman, W. O., Nashville, Mo.
 Duckett, T. H., Milford, Mo.
 Gish, G. J. P., Minden Mines, Mo.
 Griffin, W. L., Lamar, Mo.
 Locker, G. E., Iantia, Mo.
 Miller, E. F., Verdella, Mo.
 McCombs, J. L., Lamar, Mo.
 McKelvey, W. A., Minden Mines, Mo.
 Stone, A. B., Lamar, Mo.
 Van Meter, A., Lamar, Mo.

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 Allen, W. H., Rich Hill, Mo.
 Boulware, T. C., Butler, Mo.
 Chastain, E. N., Butler, Mo.
 Compton, U. J., Pleasant Gap, Mo.
 Crabtree, J. W., Butler, Mo., R. F. D.
 Delameter, G. A., Rich Hill, Mo.
 Foster, T. W., Butler, Mo.
 Gilmore, E. E., Adrian, Mo.
 Hulett, R. F., Rich Hill, Mo.
 Lancaster, H. W., Nevada, Mo.
 Lane, G. G., Rich Hill, Mo.

Lockwood, T. D., Butler, Mo.
 Lyle, A. E., Butler, Mo.
 Martin, J. R., Merwin, Mo.
 Miller, Sherman, Ulrich, Mo.
 Powers, C. E., Amoret, Mo.
 Robinson, E. E., Adrian, Mo.
 Rhodes, H. A., Foster, Mo.
 Sparr, E. E., Amsterdam, Mo.
 Whipple, N. L., Pleasant Gap, Mo.
 Williams, J. H., Hume, Mo.
 Williams, W. A., Hume, Mo.
 Zey, E. J., Butler, Mo.

BENTON COUNTY.

Clark, J. W., Fristoe, Mo.
 Curl, C. A., Cross Timbers, Mo.
 Dick, M., Colecamp, Mo.
 Dillon, M., Fairfield, Mo.
 Greeson, G. A., Lincoln, Mo.
 Holtzen, E. E., Colecamp, Mo.
 Jones, W. G., Lincoln, Mo.
 Pomeroy, R. L., Warsaw, Mo.
 Rhodes, E. L., Lincoln, Mo.
 Savage, H. G., Warsaw, Mo.
 Schwald, N. A., Colecamp, Mo.
 Stratton, S. O., Edmonson, Mo.
 Smith, J. R., Warsaw, Mo.
 Walton, J. H., Ionia, Mo.

BOONE COUNTY.

Angell, W. E., Rocheport, Mo.
 Austin, R. S., Hallsville, Mo.
 Belden, W. E., Columbia, Mo.
 Calvert, J. W., Columbia, Mo.
 Chinn, E. H., Rocheport, Mo.
 Gentry, E. N., Sturgeon, Mo.
 Gordon, James, Columbia, Mo.
 Hulen, J. C., Centralia, Mo.
 Hickerson, J. T., Centralia, Mo.
 Jackson, C. M., Columbia, Mo.
 Kampschmidt, A. W., Columbia, Mo.
 Keith, J. F., Sturgeon, Mo.
 Lewis, M. D., Columbia, Mo.
 McAlester, A. W., Columbia, Mo.
 McCallister, W. A., Centralia, Mo.
 McComas, A. R., Sturgeon, Mo.
 Meyer, M. W., Columbia, Mo.
 Miller, Walter, McN., Columbia, Mo.
 Moss, Woodson, Columbia, Mo.
 Nifong, F. G., Columbia, Mo.
 Norris, W. A., Columbia, Mo.
 Noyes, G. L., Columbia, Mo.
 Robinson, R. R., Hallsville, Mo.
 Robinson, W. A., Sturgeon, Mo.
 Schorer, E. H., Columbia, Mo.
 Thornton, J. E., Columbia, Mo.
 Wallace, E. J., Centralia, Mo.
 Wren, J. A., Woodlandville, Mo.

BUCHANAN COUNTY.

(All addresses St. Joseph, Mo., unless otherwise stated.)

Bandall, O. A., 2004 St. Joseph Ave.
 Bansbach, J. J., 823 Fred. Ave.
 Ballard, E. S., King Hill Bldg.
 Bauman, L. C., 4th & Edmond.
 Bell, J. M., 213 N. 7th St.
 Bertram, C. W., Logan Block.
 Bode, L. F., 520 S. 6th St.
 Bowen, J. K. P., 805 Francis.
 Bullock, E. H., Bank of Commerce Bldg.
 Byrd, Chas. F., 2301 St. Joseph Ave.
 Byrne, J. I., Bank of Commerce Bldg.
 Campbell, O. B., Hughes Bldg.
 Carpenter, S. F., Hughes Bldg.
 Dandurant, L. J., 8th & Felix.
 Davis, E. C., 1409 S. 11th St.
 Deffenbaugh, W. B., 710 Felix St.
 Donelan, E. A., 1307 Dewey Ave.
 Dowell, Robt. F., Agency, Mo.
 Doyle, J. M., 107 N. 9th St.
 Doyle, T. H., 107 N. 9th St.
 Dunsmore, J. M., 9th & Charles St.
 Elam, W. T., Logan Block.
 Farber, M. J., 6th & Edmond.
 Fassett, Chas. Wood, Krug Park Pl.
 Ferguson, J. W., 710 Felix St.
 Forgrave, H. S., King Hill Bldg.
 Forgrave, L. R., Logan Block.
 French, J. A., 408 S. 8th St.

Fulkerson, P. P., 6th & Francis St.
 Gebhart, O. C., King Hill Bldg.
 Geiger, C. G., 613 Francis St.
 Geiger, Jacob, 613 Francis St.
 Gleaves, O. G., Station B.
 Goetze, W. E., 7th & Edmond.
 Good, C. A., Logan Block.
 Graham, J. K., Logan Block.
 Gray, A. L., Logan Block.
 Gray, M. S., Logan Block.
 Heddens, J. W., 614 Francis St.
 Holley, A. E., Rock Island Bldg.
 Hull, W. S., Faucett, Mo.
 Humfreville, D. L., Pitts Bldg.
 Islaub, J. W., 207 S. 14th St.
 Kenney, W. L., Commercial Bldg.
 Kessler, S. F., 614 Francis St.
 Ladd, Fred A., Bank of Commerce Bldg.
 Lau, G. A., 820 Edmond.
 Lee, Herbert, Inza, Mo.
 Leonard, P. L., 613 Francis St.
 Lewis, J. H., 636 S. 6th St.
 Long, L. S., 820 Edmond St.
 McCoy, J. H., 710 Felix St.
 McGill, W. J., King Hill Bldg.
 McGlothlin, A. B., 720 Francis St.
 Minton, W. H., King Hill Bldg.
 Morton, Daniel, King Hill Bldg.
 Morrison, W. S., Rushville, Mo.
 Osborn, J. F., 2402 S. 17th St.
 Owens, J. F., Ballinger Bldg.
 Patterson, Frederick A., 205 Hughes Bldg.
 Paul, T. M., 825 Fred. Ave.
 Paulette, A. W., Ballinger Bldg.
 Pitts, Barton, Pitts Bldg.
 Potter, T. E., 7th & Edmond St.
 Redmond, Thos., 807 Francis St.
 Reynolds, J. B., 417 Francis St.
 Richardson, W. H., 10th & Felix St.
 Sampson, Chris. M., 115 N. 5th St.
 Sampson, J. H., 115 N. 5th St.
 Schmid, W. F., Pitts Bldg.
 Senn, Geo., 220 N. 9th St.
 Smith, J. C., Hosp. No. 2.
 Spencer, F. H., Box 903.
 Stamey, J. Thomas, 2624 St. Joe Ave.
 Thomas, C. E., Commercial Bldg.
 Thompson, G. R., Hosp. No. 2.
 Timmerman, A. R., 410½ Illinois Ave.
 Todd, L. A., 8th & Jule.
 Toothaker, B. W., Hughes Bldg.
 Walker, H. L., 926 N. 3rd St.
 Wallace, C. H., 8th & Jule.
 Willman, R., 301 N. 11th St.
 Woodson, C. R., 220 N. 7th St.

BUTLER COUNTY.

Cadwell, Victor, Poplar Bluff, Mo.
 Crump, A., Batesville, Mo.
 Dewitt, Eskew, Poplar Bluff, Mo.
 Kendall, W. A., Poplar Bluff, Mo.
 Mott, J. W., Poplar Bluff, Mo.
 Rowe, A. R., Poplar Bluff, Mo.
 Seybold, I. W., Poplar Bluff, Mo.
 Taylor, W. F. S., Poplar Bluff, Mo.
 Tranbitz, A., Neelysville, Mo.
 Williamson, C. W., Poplar Bluff, Mo.

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 Brown, Tinsley, Hamilton, Mo.
 Carr, B. F., Polo, Mo.
 Cowley, G. B., Cowgill, Mo.
 DaLameter, H., Stet. Mo.
 Dewey, C. O., Breckenridge, Mo.
 Dowell, G. S., Braymer, Mo.
 Duffie, W. M., Hamilton, Mo.
 Dwight, K. M., Hamilton, Mo.
 Eads, L. J., Hamilton, Mo.
 Gartside, J. E., Kingston, Mo.
 Goins, G. W., Breckenridge, Mo.
 Hudson, J. W., Oregon, Mo.
 Leeper, C. C., Braymer, Mo.
 Lindley, W. T., Hamilton, Mo.
 McConkey, C. M., Lathrop, Mo.
 McMurtrey, T. C., Kidder, Mo.
 Mount, R. L., Polo, Mo.
 Scanlon, T. W., Polo, Mo.
 Schroeder, H. A., Braymer, Mo.
 Shouse, W. S., Kingston, Mo.

Smith, S. D., Cowgill, Mo.
 Tiffin, Clayton, Hamilton, Mo.
 Waterman, J. A., Breckenridge, Mo.
 Watson, R. H., Hamilton, Mo.
 Wilhelm, D. E., Rialto Bldg., Kansas
 City, Mo.
 Wilkerson, J. O., Cowgill, Mo.
 Woolsey, C. B., Braymer, Mo.
 Woolsey, C. L., Braymer, Mo.

CALLAWAY COUNTY.

Baker, N. F., Fulton, Mo.
 Bridges, A. D., Portland, Mo.
 Christian, C. H., New Bloomfield, Mo.
 Crews, R. M., Williamsburg, Mo.
 Davis, J. R., Mokane, Mo.
 Evans, E. E., Fulton, Mo.
 Gilman, D. C., Portland, Mo.
 Harrison, J. F., Farmington, Mo.
 Lewis, C. W., Fulton, Mo.
 McCall, G. D., Fulton, Mo.
 Owen, H. I., Fulton, Mo.
 Payne, W. O., Fulton, Mo.
 Williams, P. E., Fulton, Mo.
 Williamson, W. H., Mokane, Mo.
 Yates, Martin, Fulton, Mo.
 Young, D. H., Fulton, Mo.

CAMDEN COUNTY.

Claiborn, E. G., Decaturville, Mo.
 Ford, J. S., Linn Creek, Mo.
 Mills, Sherman, Macks Creek, Mo.
 Moore, Geo. M., Linn Creek, Mo.
 Moulder, G. A., Linn Creek, Mo.
 Myers, G. T., Macks Creek, Mo.

CAPE GIRARDEAU COUNTY.

Atkins, R. F., Jackson, Mo.
 Chandler, J. J., Lutesville, Mo.
 Costner, N. F., Dutchtown, Mo.
 Cunningham, H. L., Cape Girardeau,
 Mo.
 Dalton, A. E., Friedheim, Mo.
 Dalton, R. P., Cape Girardeau, Mo.
 Hayes, B. W., Jackson, Mo.
 Henderson, R. T., Jackson, Mo.
 Higdon, E. E., Allenville, Mo.
 Hope, D. H., Cape Girardeau, Mo.
 Howard, W. N., Cape Girardeau, Mo.
 Porterfield, J. D. Jr., Cape Girardeau,
 Mo.
 Rosenthal, M., Cape Girardeau, Mo.
 Sander, C. A., Marble Hill, Mo.
 Schulz, G. B., Cape Girardeau, Mo.
 Statler, W. K., Oak Ridge, Mo.
 Tarlton, G. W., Cape Girardeau, Mo.
 Vinyard, G. W., Jackson, Mo.
 Walker, G. W., Cape Girardeau, Mo.
 Wichterich, R. F., Cape Girardeau, Mo.
 Wilson, E. H. G., Cape Girardeau, Mo.
 Witmer, C. M., Marble Hill, Mo.
 Yount, W. E., Cape Girardeau, Mo.

CARROLL COUNTY.

Austin, C. S., Carrollton, Mo.
 Avery, T. W., DeWitt, Mo.
 Baird, W. C., Bogard, Mo.
 Boggs, J. D., Norborne, Mo.
 Cook, R. F., Carrollton, Mo.
 Cooper, J. C., Carrollton, Mo.
 Craton, M. W., Carrollton, Mo.
 Edmonds, O. R., Tina, Mo.
 Ewell, L. E., Bogard, Mo.
 Highsmith, Geo. R., Carrollton, Mo.
 Kemp, W. P., Hale, Mo.
 Lee, B. J., Norborne, Mo.
 Logan, J. P., DeWitt, Mo.
 Miller, R. M., Bogard, Mo.
 Musson, E. H., Norborne, Mo.
 Newland, C. W., Bogard, Mo.
 Price, J. T., Norborne, Mo.
 Samuels, L., Carrollton, Mo.
 Shawhan, R. C., Hale, Mo.
 Spencer, N. A., DeWitt, Mo.
 Stephenson, J. T., Tina, Mo.
 Tull, H. W., Carrollton, Mo.

CARTER-SHANNON COUNTY.

Andrews, Geo. D., Grandin, Mo.
 Chilton, J. A., Van Buren, Mo.
 Cotton, T. W., Van Buren, Mo.
 Fulton, William, Winona, Mo.
 Gump, P. D., Birchtree, Mo.
 Johnston, Alexander, Grandin, Mo.

CASS COUNTY.

Adair, T. W., Archie, Mo.
 Anderson, C. M., Pleasant Hill, Mo.
 Balliett, M. R., Pleasant Hill, Mo.
 Barrett, W. H., Harrisonville, Mo.
 Beckman, W. S., Strasburg, Mo.
 Brierley, H. A., Peculiar, Mo.
 Chaffin, W. F., Raymore, Mo.
 Clemens, W. M., Cleveland, Mo.
 Crawford, H. S., Harrisonville, Mo.
 Elder, A. R., Harrisonville, Mo.
 Ellis, Frank B., Garden City, Mo.
 Farnsworth, A. D., Drexel, Mo.
 Farrow, G. W., East Lynne, Mo.
 Foster, F. W., East Lynne, Mo.
 Garrison, W. H., Eightmile, Mo.
 Grant, H. M., Pleasant Hill, Mo.
 Griffith, David, Creighton, Mo.
 Jerard, H., Pleasant Hill, Mo.
 Keller, E. G., Freeman, Mo.
 Overholser, M. B., Harrisonville, Mo.
 Prentiss, H. S., Pleasant Hill, Mo.
 Ramey, R. D., Garden City, Mo.
 Rhodes, M. K., Austin, Mo.
 Schoor, E., Garden City, Mo.
 Triplett, J. S., Harrisonville, Mo.
 Yeagle, R. P., Pleasant Hill, Mo.

CEDAR COUNTY.

Crawford, R. O., El Dorado Springs,
 Mo.
 Dawson, J. W., El Dorado Springs, Mo.
 Dunaway, L. T., Clappinger Mills, Mo.
 Edgar, C. A., El Dorado Springs, Mo.
 Hill, K., El Dorado Springs, Mo.
 Liston, E. H., Balm, Mo.
 Marr, R. B., Filley, Mo.

CHARITON COUNTY.

Austin, M. B., Brunswick, Mo.
 Baker, J. H. P., Salisbury, Mo.
 Baker, W. L., Salisbury, Mo.
 Banning, T. J., Salisbury, Mo.
 Billeter, W. J., Bynumville, Mo.
 Brummall, J. D., Salisbury, Mo.
 Edwards, G. W., Brunswick, Mo.
 Epperly, R. G., Prairie Hill, Mo.
 Gaines, J. R., Mussell Fork, Mo.
 Hardy, J. W., Sumner, Mo.
 Hawkins, G. W., Triplett, Mo.
 Hughes, B., Keytesville, Mo.
 Jennings, C. A., Salisbury, Mo.
 Kirkpatrick, H. E., Dalton, Mo.
 Knott, Isaiah, Keytesville, Mo.
 Lewis, A. L., Sumner, Mo.
 McAdams, J. D., Prairie Hill, Mo.
 McEuen, Oliver, Salisbury, Mo.
 Tatum, Harry, Brunswick, Mo.
 Temple, C. H., Rockford, Mo.
 Todd, W. T., R. F. D., Centralia, Mo.
 Wallace, J. S., Brunswick, Mo.
 Welch, J. F., Salisbury, Mo.
 Zilman, A. W., Indian Grove, Mo.

CHRISTIAN COUNTY.

Brown, F. W., Billings, Mo.
 Bruton, J. W., Ozark, Mo.
 Farthing, R. R., Sparta, Mo.
 Nagle, P. E., Billings, Mo.
 Robertson, J. A., Ozark, Mo.
 Smith, W. L., Sparta, Mo.
 Vandeventer, D. O., Garrison, Mo.
 Young, J. C., Ozark, Mo.

CLARK COUNTY.

Bridges, J. R., Kahoka, Mo.
 Callihan, R. G., Luray, Mo.
 Hiller, Frank B., Kahoka, Mo.
 Martin, W. H., Kahoka, Mo.
 Sisson, W. B., Kahoka, Mo.
 Teel, A. W., Kahoka, Mo.

CLAY COUNTY.

Allen, J. M., Liberty, Mo.
 Alton, G. P., Gashland, Mo.
 Ashley, M. A., Excelsior Springs, Mo.
 Bogart, T. N., Excelsior Springs, Mo.
 Fulton, F. H., Plattsburg, Mo.
 Gaines, J. J., Excelsior Springs, Mo.
 Goodson, W. H., Liberty, Mo.
 Griffin, J. M., Excelsior Springs, Mo.
 Hill, E. C., Smithville, Mo.
 Isley, M. D. L., Excelsior Springs, Mo.
 Jones, H. S., Linden, Mo.
 Lightfoot, Frank, Excelsior Springs, Mo.
 Lowrey, E., Excelsior Springs, Mo.
 Matthews, F. H., Liberty, Mo.
 Miller, E. H., Liberty, Mo.
 Ralph, A. B., Orrick, Mo.
 Rice, J. J., Kearney, Mo.
 Rice, J. T., Excelsior Springs, Mo.
 Rothwell, J. H., Liberty, Mo.
 Rowell, H., Kearney, Mo.
 Sevier, R. E., Liberty, Mo.
 Suddarth, C. H., Smithville, Mo.
 Wallace, W. S., Excelsior Springs, Mo.
 Ward, T. J., Birmingham, Mo.
 Woods, R. J., Smithville, Mo.
 Wysong, W. L., Missouri City, Mo.

CLINTON COUNTY.

Colley, E. A., Plattsburg, Mo.
 Franklin, J. A., Cameron, Mo.
 Kay, John, Perrin, Mo.
 Longfield, Jesse, Turney, Mo.
 Peters, M. L., Cameron, Mo.
 Rea, R. W., Plattsburg, Mo.
 Rush, G. B., Lathrop, Mo.
 Steckman, P. M., Plattsburg, Mo.
 Sturgis, John, Perrin, Mo.

COLE COUNTY.

Aldridge, M. R., Jefferson City, Mo.
 Bedford, S. V., Jefferson City, Mo.
 Biesmeyer, L. F., Westphalia, Mo.
 Bowls, S. A., Linn, Mo.
 Chastain, C. W., Jefferson City, Mo.
 Clark, W. A., Jefferson City, Mo.
 Enloe, C. P., Jefferson City, Mo.
 Ettmueller, G., Jefferson City, Mo.
 Gove, Herman T., Linn, Mo.
 Hill, J. A., Jefferson City, Mo.
 Hough, C. P., Jefferson City, Mo.
 Leach, N. T., Elston, Mo.
 Martin, J. B., Russellville, Mo.
 Norwood, W. W., Russellville, Mo.
 Porth, J. P., Jefferson City, Mo.
 Richoff, A. H., Chamois, Mo.
 Son, E. R., Osage City, Mo.
 Sneed, C. M., Jefferson City, Mo.
 Thorpe, J. L., Jefferson City, Mo.

COOPER COUNTY.

Barnes, H. T., Pilot Grove, Mo.
 Barnes, W. S., Pilot Grove, Mo.
 Cordry, H. V., Boonville, Mo.
 Elliott, W. H., Bunceton, Mo.
 Evans, R. L., Boonville, Mo.
 Fogel, R. L., Clifton City, Mo.
 Lionberger, John R., Boonville, Mo.
 Meredith, A. L., Woolridge, Mo.
 Monroe, A. E., Otterville, Mo.
 Nelson, A. W. B., Bunceton, Mo.
 Parrish, J. S., Pleasant Green, Mo.
 Pendleton, Thomas O., Pilot Grove, Mo.
 Quigg, H. D., Blackwater, Mo.
 Rice, E. L., Otterville, Mo.
 Smiley, F. R., Boonville, Mo.
 Teel, S. M., Prairie Home, Mo.
 Van Ravenswaay, C. H., Boonville, Mo.

DAVIESS COUNTY.

Bickel, James T., Winston, Mo.
 Brosius, Wm. L., Gallatin, Mo.
 Minnick, A. G., Lock Spring, Mo.
 Smith, M. A., Gallatin, Mo.
 Thompson, O. N., Lock Spring, Mo.
 Waller, C. E., Altamont, Mo.
 Wetzell, N. M., Jameson, Mo.

DEKALB COUNTY.

Clark, W. J., Maysville, Mo.
 Evans, R. A., Amity, Mo.
 Gale, W. S., Osborn, Mo.
 Guinn, J. C., Clarksdale, Mo.
 Kimberlin, J. E., Union Star, Mo.
 Lee, L. E., Weatherby, Mo.
 Reynolds, E. M., Union Star, Mo.
 Richey, L. A., Fairport, Mo.
 Saunders, L. E., Stewartsville, Mo.
 Stroup, E. R., Weatherby, Mo.
 Yeater, H. P., Maysville, Mo.

DENT COUNTY.

Arthur, S. F., Lecomma, Mo.
 Calhoun, D. S., Sligo, Mo.
 Conoway, R. H., Mounce, Mo.
 Cummings, W. P., Salem, Mo.
 Duncan, E. A., Salem, Mo.
 Gordon, J. B., Gila, Mo.
 Lenox, W. M., Hobson, Mo.
 McMurtrey, A. T., Salem, Mo.
 Rudd, W. E., Salem, Mo.
 Welch, J. C., Salem, Mo.

FRANKLIN COUNTY.

Booth, H. A., Pacific, Mo.
 Brown, A. C., Moselle, Mo.
 Briegleb, Chas. F., St. Clair, Mo.
 Dunnigan, J. P., Sullivan, Mo.
 Eimbeck, A. F., New Haven, Mo.
 Eimbeck, Wm. F., New Haven, Mo.
 Fitzgerald, W. P., Gerald, Mo.
 Hempker, W. H., Catawissa, Mo.
 Hume, E. L., Bourbon, Mo.
 Isbell, John, Washington, Mo.
 Kitchell, W. E., St. Clair, Mo.
 Lane, A., Sullivan, Mo.
 Mankopf, B. E., New Haven, Mo.
 May, H. A., Washington, Mo.
 McNay, A. L., Pacific, Mo.
 Poppenhusen, H. A. C., Washington, Mo.
 Reaves, L. W., Japan, Mo.
 Rusk, E. McD., Villa Ridge, Mo.
 Rusk, John A., Gray's Summit, Mo.
 Schudde, O. N., Sullivan, Mo.
 Smith, August A., Pacific, Mo.
 Snow, A. E., Union, Mo.
 Williams, D. E., Lonedell, Mo.

GASCONADE-MARIES-OSAGE
COUNTY.

Auf der Heide, Frederick, Drake, Mo.
 Burgess, J. W., Belle, Mo.
 Byler, W. F., Koeltztown, Mo.
 Englebrecht, John, Stonyhill, Mo.
 Ferrell, J. J., Owensville, Mo.
 Ferrell, W. R., Bland, Mo.
 Leach, C. J., Feuersville, Mo.
 Neely, J. E., Vancleve, Mo.
 Nieweg, J. W., Owensville, Mo.
 Radmacher, J. J., Meta, Mo.
 Seba, John D., Bland, Mo.
 Seba, W. E., Leedy, Okla.
 Spurgeon, Marion E., Red Bird, Mo.
 Terrill, S. I., Meta, Mo.

GENTRY COUNTY.

Barger, J. U., Darlington, Mo.
 Brooks, W. W., Stanberry, Mo.
 Conrad, J. W., Albany, Mo.
 Crockett, J. A., Stanberry, Mo.

Davis, Benj. Jr., Albany, Mo.
 Forbis, C. F., Gara, Mo.
 Landis, H. B., King City, Mo.
 Lindley, E. R., Stanberry, Mo.
 Long, H. L., Berlin, Mo.
 Martin, W. T., Albany, Mo.
 Smith, Geo. W., Albany, Mo.
 Whiteley, G. W., Albany, Mo.

GREENE COUNTY.

Armstrong, A., 305 S. Campbell St.,
 Springfield, Mo.
 Barnes, G. W., 200 W. Commercial St.,
 Springfield, Mo.
 Bartlett, J. R., 540 E. Commercial St.,
 Springfield, Mo.
 Beers, E. G., Springfield, Mo.
 Boyd, J. R., Springfield, Mo.
 Carter, O. N., Brookline Station, Mo.
 Camp, W. A., Springfield, Mo.
 Clark, J. W., Bois D'Arc, Mo.
 Coffelt, T. A., Springfield, Mo.
 Cowen, H. K., Ash Grove, Mo.
 Cox, Lee, 223 South St., Springfield,
 Mo.
 Crane, T. V. B., Springfield, Mo.
 Dewey, J. E., Springfield, Mo.
 Doolin, T., Ash Grove, Mo.
 Dorrell, G. B., Republic, Mo.
 Elkins, E. Bryant, Springfield, Mo.
 Evans, E. C., Koshkonong, Mo.
 Evans, E. L., Springfield, Mo.
 Farnsworth, D. B., Springfield, Mo.
 Fortner, B. F., Springfield, Mo.
 Fulbright, J. H., Springfield, Mo.
 Fulton, C. E., Springfield, Mo.
 Fuson, F. B., Mansfield, Mo.
 Hill, H. S., Springfield, Mo.
 James, W. C., 445 E. Commercial St.,
 Springfield, Mo.
 Kern, U. F., Springfield, Mo.
 Knab, E., Springfield, Mo.
 McClure, L. E., Walnut Grove, Mo.
 Matthews, J. C., Springfield, Mo.
 Mayfield, M. H., Springfield, Mo.
 Miller, T. C., Ash Grove, Mo.
 Moore, C. A., Springfield, Mo.
 Neer, C. S., Springfield, Mo.
 Nixon, J. H., Springfield, Mo.
 Oldham, J. D., Springfield, Mo.
 Ormsbee, J. L., Springfield, Mo.
 Patterson, W. P., Springfield, Mo.
 Peak, O. L., Springfield, Mo.
 Perry, J. K., Walnut Grove, Mo.
 Pipkin, R. L., Springfield, Mo.
 Pursselley, W. L., Springfield, Mo.
 Ralston, J. P., Springfield, Mo.
 Rienhoff, Wm., Springfield, Mo.
 Ross, F. E., Springfield, Mo.
 Ruyle, H. J., Springfield, Mo.
 Sayers, J. S., Springfield, Mo.
 Sherman, D. U., Springfield, Mo.
 Smith, W. M., Springfield, Mo.
 Tefft, J. E., 103½ E. Square, Spring-
 field, Mo.
 Terry, N. F., Springfield, Mo.
 Thomas, Earl, Springfield, Mo.
 Tickle, S. W., Springfield, Mo.
 Williams, J. W., Springfield, Mo.
 Williams, N. C., 318½ College St.,
 Springfield, Mo.
 Willier, A. F., 1437 Summit Ave.,
 Springfield, Mo.
 Woody, C. E., Springfield, Mo.
 Wright, J. P., Springfield, Mo.

GRUNDY COUNTY.

Asher, J. A., Trenton, Mo.
 Coon, D. W., Trenton, Mo.
 Fulkerson, W. D., Trenton, Mo.
 Sheldon, S., Trenton, Mo.
 Winningham, W. H., Trenton, Mo.
 Wright, J. B., Trenton, Mo.

HARRISON COUNTY.

Broyles, F. H., Bethany, Mo.
 Bryson, E. H., Bethany, Mo.
 Dunkerson, E. B., Hatfield, Mo.
 Eades, M. H., New Hampton, Mo.

Gwinn, G. E., Bethany, Mo.
 Mitchell, C. A., Blythedale, Mo.
 Morrow, J. H., Ridgeway, Mo.
 Robertson, C. H., Eagleville, Mo.
 Stewart, B. S., Bethany, Mo.
 Sutton, B. N., Happy Valley, Mo.
 Swint, William, Gilman City, Mo.
 Vandivert, A. H., Bethany, Mo.
 Wiley, W. H., Ridgeway, Mo.
 Williams, A. W., Ridgeway, Mo.

HENRY COUNTY.

Barr, Bernice B., Clinton, Mo.
 Beaty, Joseph G., Huntingdale, Mo.
 Benway, Wm. H., Deepwater, Mo.
 Berry, Geo. W., Montrose, Mo.
 Blackmore, Thomas A., Windsor, Mo.
 Bradley, Will P., Windsor, Mo.
 Britts, John H., Clinton, Mo.
 Bronaugh, J. H., Calhoun, Mo.
 Derwent, A. E., Clinton, Mo.
 Douglass, F. M., Clinton, Mo.
 Fewell, R. B., Montrose, Mo.
 Gibbins, Wm. H., Clinton, Mo.
 Gray, A. A., Calhoun, Mo.
 Griffith, C. E., Windsor, Mo.
 Haire, Robt. D., Clinton, Mo.
 Hampton, J. R., R. F. D. 1, Clinton, Mo.
 Head, C. W., Windsor, Mo.
 Howard, Corwin F., Deepwater, Mo.
 Kunkler, J. E., Clinton, Mo.
 McNees, A. Jackson, Clinton, Mo.
 Menees, G. W., Clinton, Mo.
 Miller, J. M., Montrose, Mo.
 Peelor, Edwin C., Coal, Mo.
 Poague, S. A., Clinton, Mo.
 Russell, J. J., Deepwater, Mo.
 Shankland, Wm. M., Clinton, Mo.
 Smith, L. L., Ulrich, Mo.
 Streibey, U. G., Brownington, Mo.
 Taylor, C. D., Brownington, Mo.
 Walker, G. S., Calhoun, Mo.
 Wallis, J. R., Clinton, Mo.
 Wilson, J. S., Deepwater, Mo.
 Woltzen, S. W., Ulrich, Mo.

HOLT COUNTY.

Bullock, F. E., Forest City, Mo.
 Chandler, J. F., Forest City, Mo.
 Davis, J. M., Craig, Mo.
 Davis, T. O., Maitland, Mo.
 Evans, C. L., Oregon, Mo.
 Hogan, F. E., Bigelow, Mo.
 Kaltenbach, E., Craig, Mo.
 Miller, E. E., Craig, Mo.
 Miller, E. M., Mound City, Mo.
 Miller, R. R., Maitland, Mo.
 Proud, W. C., Oregon, Mo.
 Quigley, B. T., Mound City, Mo.
 Simmons, B. B., Oregon, Mo.
 Tracy, J. C., Mound City, Mo.
 Tracy, J. M., Mound City, Mo.
 Williams, Ira, Maitland, Mo.
 Wood, W. S., Oregon, Mo.

HOWARD COUNTY.

Bonham, Vaughn Q., New Franklin, Mo.
 Burgwin, A. B., Fayette, Mo.
 Champion, J. R., Hillsdale, Mo.
 Fleet, J. B., New Franklin, Mo.
 Gallemore, G. B., Boonsboro, Mo.
 Givens, H. K., Fayette, Mo.
 Hume, J. Y., Armstrong, Mo.
 Lee, C. H., Fayette, Mo.
 Lewis, C. O., Fayette, Mo.
 Long, O. M., Harrisburg, Mo.
 Megee, C. P., Fayette, Mo.
 Richards, T. C., Fayette, Mo.
 Smith, N. E., Fayette, Mo.
 Thompson, W. S., Armstrong, Mo.
 Watts, C. W., Fayette, Mo.
 Wright, U. S., Fayette, Mo.
 White, M. S., Roanoke, Mo.
 Wood, J. T., Harrisburg, Mo.

HOWELL COUNTY.

Bingham, J. W., Pottersville, Mo.
 Black, James M., Southfork, Mo.
 Culp, J. C., Thayer, Mo.

Davis, J. C. B., Willow Springs, Mo.
 Dixon, J. C. B., West Plains, Mo.
 Eblen, J. L., Alton, Mo.
 Johnson, J. McB., West Plains, Mo.
 Mitchell, E. H., Pottersville, Mo.
 Nichols, D. J., West Plains, Mo.
 Powell, D. T., Thayer, Mo.
 Reiley, J. F., West Plains, Mo.
 Rowe, H. J., Willow Springs, Mo.
 Spears, R. S., West Plains, Mo.
 Shuttee, H. C., West Plains, Mo.
 Thompson, H. A., Lanton, Mo.
 Thornburg, A. H., West Plains, Mo.

IRON COUNTY.

Adams, J. Q., Bellevue, Mo.
 Farrar, G. W., Ironton, Mo.
 Gay, R. T., Ironton, Mo.
 Kerlagon, C. C., Bellevue, Mo.
 Marshall, I. A., Ironton, Mo.
 Martin, James, Pilot Knob, Mo.

JACKSON COUNTY.

(All addresses Kansas City, Mo., unless otherwise stated.)

Adams, Noah, 407 Argyle Bldg.
 Agin, Burroughs, 2317 College Ave.
 Allbritain, J. W., 24th & Holly St.
 Anderson, H. C., 716 Shukert Bldg.
 Andrews, Vernon Lee, 3745 Wabash Ave.
 Armour, W. A., 3401 E. 12th St.
 Atkins, Calvin, Independence, Mo.
 Ayers, Samuel, 1208 Wyandotte.
 Ball, H. P., 203 Rialto Bldg.
 Balsley, J. A., Santa Monica, Calif.
 Beattie, T. J., 505 Shukert Bldg.
 Beedle, Gordon A., 312 Altman Bldg.
 Beil, J. W., 311 Argyle Bldg.
 Bellows, Geo. E., 429 Rialto Bldg.
 Belove, Benj., 500 Shukert Bldg.
 Berry, Geo. F., 501 Rialto Bldg.
 Binnie, J. F., 302 Argyle Bldg.
 Block, Jacob, 419 Argyle Bldg.
 Blair, E. G., 404 Bryant Bldg.
 Blakesley, T. S., 100 Rialto Bldg.
 Boswell, A. C., 2301 Summit St.
 Bowman, Dora E., 327 Rialto Bldg.
 Barnhart, B. F., Martin City, Mo.
 Brewster, R. B., 423 Argyle Bldg.
 Brown, C. A., 418 Keith & Perry Bldg.
 Brown, Ralph, 1304 E. 12th St.
 Bruehl, Julius, 436 N. Ridge Bldg.
 Brunig, F. H., 310 Altman Bldg.
 Burke, C. L., 304 Deardorff Bldg.
 Burkhardt, E. A., 2543 Broadway.
 Burnett, S. Grover, 3100 Euclid Ave.
 Burrill, C. W., 623 Shukert Bldg.
 Callahan, Richard, 540 Cambridge Ave.
 Campbell, Wm. L., 15th & Jackson.
 Cantrell, C. D., 12th & Troost.
 Capell, Clarence S., 1107 McGee St.
 Carbaugh, Eugene, 430 Rialto Bldg.
 Carl, S. T., 350 N. Ridge Bldg.
 Carter, J. W., 2407 Jackson Ave.
 Carver, H. N., 2805 E. 12th St.
 Castelow, R. B., 13th & Woodworth.
 Cathcart, C. P., 419 Deardorff Bldg.
 Chambers, J. Q., Shukert Bldg.
 Chambliss, E. L., 523 Rialto Bldg.
 Child, Scott P., 603 Bryant Bldg.
 Clausen, J. J., 424 Deardorff Bldg.
 Clayton, Paul B., General Hospital.
 Coffey, W. H., 242 Bryant Bldg.
 Coffin, G. O., 436 N. Ridge Bldg.
 Coleman, H. B., 3105 E. 18th St.
 Conover, C. C., 405 Argyle Bldg.
 Cordier, A. H., 310 Rialto Bldg.
 Crooks, O. R., 334 Rialto Bldg.
 Cross, R. O., 317 Rialto Bldg.
 Cross, W. M., 3600 Troost Ave.
 Crowder, W. H., 304 Altman Bldg.
 Crowell, H. C., 429 Rialto Bldg.

Cunningham, O. J., 306 Altman Bldg.
 Curdy, R. J., 301 Keith & Perry Bldg.
 Curry, E. R., 304 Deardorff Bldg.
 Dailey, Forrest W., 415 Argyle Bldg.
 Dannaker, C. A., 637 Woodland Ave.
 Darling, B. C., Argyle Bldg.
 Davis, A. W., 3303 Woodland Ave.
 Davis, E. T., 2634 Myrtle.
 Davis, G. W., 12th & Central.
 Davis, S. J. T., 304 Deardorff Bldg.
 Dod, F. L., 4646 Troost Ave.
 Donaldson, G. H., 3956 Wyandotte.
 Donaldson, J. E., 3940 Broadway.
 Dove, O. H., 413 Rialto Bldg.
 Drake, N. A., 1001 Harrison St.
 Dunham, S. A., 1214 Main St.
 Eldridge, J. S., 318 E. 10th St.
 Eubank, A. E., 3021 S. W. Blvd.
 Evans, F. H., Indp. & Forest Aves.
 Faires, C. P., 1300 E. 8th St.
 Field, Thomas, 2706 E. 18th St.
 Florian, Albert J., 920 Holmes St.
 Foster, Hal, 402 Altman Bldg.
 Fowlston, John, 405 Argyle Bldg.
 Frankenberger, J. M., University Hosp.
 Freyman, A. A., 1201 Independence Ave.
 Freyman, Jokshan, 1201 Independence Ave.
 Froehling, F. W., 920 Holmes St.
 Frick, Wm., 409 Rialto Bldg.
 Frick, W. J., 415 Keith & Perry Bldg.
 Frye, A. G., 2342 Jackson Ave.
 Fryer, B. E., 520 E. 9th St.
 Fulton, A. L., 429 Deardorff Bldg.
 Fulton, C. M., 210 Argyle Bldg.
 Gaines, J. W., 406 Rialto Bldg.
 Gayle, V. W., 204 Deardorff Bldg.
 Gilmer, Wm. L., 533 Arlington St., Mt. Washington, Mo.
 Exner, Max J., 610 Wyandotte St.
 Gist, Wm., 311 Argyle Bldg.
 Goldman, Max, 319 Century Bldg.
 Gosney, C. W., 720 Shukert Bldg.
 Green, J. W., Independence, Mo.
 Greenlee, A. R., 3510 E. 10th St.
 Griffith, A. C., 522 Rialto Bldg.
 Griffith, J. D., 522 Rialto Bldg.
 Guffey, Don Carlos, 605 Bryant Bldg.
 Hall, C. Lester, 523 Bryant Bldg.
 Hall, D. Walton, 525 Bryant Bldg.
 Hall, Frank J., 422 Argyle Bldg.
 Hall, J. R., 306 Altman Bldg.
 Halley, Geo. W., 3540 Campbell St.
 Hamel, Geo. F., 706 W. 10th St.
 Hamilton, H. D., 31st & Woodland Ave.
 Hanawal, H. O., 1214 Main St.
 Hanra, M. A., 100 Rialto Bldg.
 Hardin, C. B., 413 Rialto Bldg.
 Harrelson, N. O., Suite 100 Rialto Bldg.
 Harrington, J. L., 434 Rialto Bldg.
 Harrison, Addison M., Lee's Summit.
 Harrison E. Lee, 36th & Kenwood, Mo.
 Hays, H. C., 307 Rialto Bldg.
 Heitzman, Chas. W., 329 Argyle Bldg.
 Heller, H. L., 1208 Wyandotte St.
 Henderson, J. P., 425 Argyle Bldg.
 Henry, Francis J., 2203 Brooklyn.
 Herbst, Frank, 9th & Charlotte St.
 Hertzler, A. E., 402 Argyle Bldg.
 Hetherington, E. M., 725 Bryant Bldg.
 Hickerson, J. C., Independence.
 Hill, Howard, 424 Argyle Bldg.
 Hoffman, O. Jr., 407 Argyle Bldg.
 Holbrook, E. W., 415 Argyle Bldg.
 Hollis, Luther T., 535 N. Ridge Bldg.
 Horrigan, J. A., 31st & Main St.
 Howard, John W., 805 McGee St.
 Hoxie, G. H., 317 Argyle Bldg.
 Hull, A. G., 3610 McGee St.
 Hunt, J. E., 317 Argyle Bldg.
 Hyde, B. C., 404 Bryant Bldg.
 Irwin, Chas. B., 310 Rialto Bldg.
 Iuen, F. J., 1334 Grand Ave.
 Iuen, W. C., 1334 Grand Ave.
 Jackson, C. A., 425 Argyle Bldg.
 Jackson, James N., 425 Argyle Bldg.
 Jacobs, Benj., 415 Argyle Bldg.
 James, S. C., 420 Shukert Bldg.
 Jennett, H. N., 4603 W. 9th St.
 Jerowitz, H. D., 1233 Grand Ave.
 Johnson, Chas. R., 231 Rialto Bldg.
 Johnstone, P. A., 500 Shukert Bldg.
 Jones, K. F., 1028 Walnut St.

- Kanoky, J. P., 912 Walnut St.
 Kelly, E. H., 2018 Prospect Ave.
 Kepner, Joseph W., 15th & Olive St.
 Kimberlin, J. W., 632 Altman Bldg.
 King, Geo. A., 415 Argyle Bldg.
 King, W. E., 512 Keith & Perry Bldg.
 Kistler, J. R., 601 S. W. Blvd.
 Klein, W. C., Brunswick Hotel.
 Knox, A. C., 724 Bryant Bldg.
 Krimminger, C. E., Independence Mo.
 Kruger, Geo. G., Lone Jack, Mo.
 Kuhn, H. P., Keith & Perry Bldg.
 Kuhn, W. F., State Hospital, St. Joseph, Mo.
 Kyger, J. W., 815 E. 31st st.
 Lahmer, Ira B., Walsenborg, Colo.
 Lake, N. E., 1330 Summit St.
 Lane, H. H., N. E. Cor. S. W. Blvd. & Jefferson.
 Langsdale, J. M., Altman Bldg.
 Laning, J. H., 623 Shukert Bldg.
 Lapp, J. G., 203 Askew.
 Laurenzana, D. A., 522 E. 5th St.
 Laurenzana, L., 522 E. 5th St.
 Lee, R. H., S. E. Cor. 33rd & Penn.
 Leonard, H. O., 420 Shukert Bldg.
 Leonard, H. Ward, 605 S. W. Blvd.
 Lester, Chas. H., 501 Bryant Bldg.
 Leverich, Leslie, 716 Central St.
 Lewis, J. K., 2810 E. 10th St.
 Lewis, N. O., N. W. Cor. 4th & Grand.
 Lewis, Nannie P., 1219 Wyandotte St.
 Lichtenberg, J. S., Argyle Bldg.
 Lieberman, B. A., Argyle Bldg.
 Logan, J. E., 1208 Wyandotte.
 Look, H. H., 428 Altman Bldg.
 Lowe, Frederick M., 415 Argyle Bldg.
 Lowtey, W. J., 402 Hall Bldg.
 Luscher, L. W., 205 E. 12th St.
 Lyle, Halsey M., 311 Argyle Bldg.
 Lynch, J. C., 14th & Grand Ave.
 McAlester, A. W., Jr., 703 Bryant Bldg.
 McArthur, A. W., 512 Shukert Bldg.
 McBride, W. L., 503 Bryant Bldg.
 McCall, H. B., 1424 Holmes St.
 McCandless, O. H., Boulder, Colo.
 McCrea, Maggie, 535 N. Ridge Bldg.
 McDonald, Chett, 527 Rialto Bldg.
 McDonald, Park, 527 Rialto Bldg.
 McKee, Joseph W., 329 Rialto Bldg.
 McKillip, O. L., 532 Altman Bldg.
 McQuade, H. D., 210 Rialto Bldg.
 McVey, Newton, 324 Rialto Bldg.
 Mallett, E. P., 302 Argyle Bldg.
 Manko, Emanuel, 227 W. 12th St.
 Mann, A. W., Oak Grove, Mo.
 Mark, E. G., 319 Argyle Bldg.
 Martin, H. L., 601 E. 12th St.
 Martin, J. C., 3026 E. 23rd St.
 Mathias, Edward L., 210 Rialto Bldg.
 Merriman, C. S., 2511 Forest Ave.
 Middleton, James, 412 N. Mt. St. Gall.
 Miller, Abram, 531 Rialto Bldg.
 Miller, Hugh, 705 Shukert Bldg.
 Mitchell, John T., 510 N. Ridge Bldg.
 Moennighoff, Fritz, 513 Rialto Bldg.
 Montgomery, W. E., 428 Rialto Bldg.
 Morris, W. C., 315 Garfield Ave.
 Morrow, C. J., 504 Bryant Bldg.
 Morrow, W. F., 400 Altman Bldg.
 Mosher, Geo. C., 605 Bryant Bldg.
 Mott, J. S., 517 Rialto Bldg.
 Murphy, F. E., 405 Deardorff Bldg.
 Neff, F. C., 532 Altman Bldg.
 Newhouse, Stanley, 452 N. Ridge Bldg.
 Nixon, J. W., 517 Shukert Bldg.
 Norberg, Geo. B., 311 Argyle Bldg.
 O'Connor, C., Cor. 13th & Campbell.
 O'Donnell, Alfred, 415 Argyle Bldg.
 Overall, T. W., 422 Rialto Bldg.
 Owens, M. J., Cor. S. W. Blvd. & Jefferson.
 Parker, O. H., Cor. 12th & Central.
 Pearce, H. E., 324 Rialto Bldg.
 Perkins, J. W., Altman Bldg.
 Pettijohn, N. J., 3416 Holmes St.
 Phillips, E. T., 1019 Broadway.
 Pinckard, C. G., 903 E. 8th St.
 Pipkin, Geo. P., 706 Cleveland.
 Pittam, J. T., 1106 Broadway.
 Porter, Allen L., 100 Rialto Bldg.
 Porter, D. R., 430 W. 10th St.
 Pugsley, Fred N., 333 Argyle Bldg.
 Punton, John, 532 Altman Bldg.
 Ragan, Stephen H., 31st & Holmes.
 Ragsdale, T. J., Lee's Summit, Mo.
 Ralston, J. H., 1800 W. 29th St.
 Randolph, A. G., 3303 Woodland Ave.
 Rathbone, F. W., 3303 Woodland Ave.
 Reed, Wm. M., 422 Rialto Bldg.
 Reyling, F. T., 1004 Oak St.
 Reynolds, W. T., 324 Shukert Bldg.
 Rice, Wm., 402 Hall Bldg.
 Richardson, Katherine B., 21 Clinton Pl.
 Rieger, Earl C., 1105 W. 24th St.
 Ritter, C. A., 702 Bryant Bldg.
 Roberson, H. M., 706 W. 10th St.
 Roberts, C. F., 720 Shukert Bldg.
 Roberts, C. S., Lee's Summit.
 Roberts, J. L., 224 Argyle Bldg.
 Robertson, J. A., 705 Shukert Bldg.
 Robinson, Ernest, 603 Bryant Bldg.
 Robinson, J. L., 400 Altman Bldg.
 Rogers, Ford B., Argyle Bldg.
 Rogers, J. C., 403 Rialto Bldg.
 Rosenwald, Leon, 403 Argyle Bldg.
 St. Clair, R. L., 5200 St. John Ave.
 Sams, Wm. M., 1422 Independence Ave.
 Sanders, F. L., 518 Shukert Bldg.
 Sanders, St. Elmo, 419 Shukert Bldg.
 Sandzen, Carl, Rialto Bldg.
 Sawyer, J. F., 317 Rialto Bldg.
 Sawyer, Thos. T., 4303 E. 15th St.
 Schaufler, E. W., 317 Argyle Bldg.
 Schaufler, R. M., 317 Argyle Bldg.
 Scott, J. N., 214 N. Ridge Bldg.
 Schutz, W. H., 712 Bryant Bldg.
 Sheldon, J. G., 405 Altman Bldg.
 Shelton, W. A., 405 Argyle Bldg.
 Sholey, O. C., Independence, Mo.
 Sherer, J. W., 418 Argyle Bldg.
 Shumate, D. L., 517 Shukert Bldg.
 Singleton, J. M., 1105 E. 15th St.
 Skinner, Edward H., 212 Rialto Bldg.
 Sloan, R. T., 407 Rialto Bldg.
 Smith, J. Herbert, 426 Rialto Bldg.
 Smith, R. M., 203 E. 12th St.
 Songer, H. E., 3224 Oak St.
 Stephens, Nannie, 817 E. 31st St.
 Stevens, Wm. W., 513 Rialto Bldg.
 Stewart, E. L., 520 Shukert Bldg.
 Stofer, S. R., 3618 Independence Ave.
 Streett, St. Clair, 302 Argyle Bldg.
 Strother, J. S., 415 Keith & Perry Bldg.
 Sutton, Richard L., 276 Ridge Bldg.
 Swaney, A. G., Lee's Summit, Mo.
 Swaney, Loren, Hickman Mills, Mo.
 Switzer, Clyde, 12th & Troost.
 Talbot, Ambrose, 203 Rialto Bldg.
 Taylor, L. G., 429 Deardorff Bldg.
 Tesson, N. A. G., 405 Argyle Bldg.
 Thomas, A. W., Frisco Hospital, Springfield, Mo.
 Thompson, G. B., 2317 Troost Ave.
 Thompson, J. H., 402 Deardorff Bldg.
 Thompson, James, 207 Rialto Bldg.
 Thornton, Thos. R., Lee's Summit, Mo.
 Thrallkill, E. H., 307 Rialto Bldg.
 Tieman, T. G., 608 S. W. Blvd.
 Tiffany, Flavel B., 805 McGee St.
 Trimble, W. K., 3444 Prospect.
 Trueman, H. G., 600 Bryant Bldg.
 Truymann, T. G., Independence, Mo.
 Van Eman, Fred, 415 Argyle Bldg.
 Voegelin, Samuel, 436 N. Ridge Bldg.
 Von Quast, E., 310 Century Bldg.
 Wedding, E. A., 2122 E. 15th St.
 Weiss, F. H., 416 Deardorff Bldg.
 Welch, A. J., 434 Rialto Bldg.
 Wever, J. S., 501 Bryant Bldg.
 Wheeler, B. H., 422 Deardorff Bldg.
 Wheeler, W. S., 205 E. 12th St.
 Wherritt, H. P., Independence, Mo.
 Willits, W. C., 311 Argyle Bldg.
 Wilson, C. M., 906 Main St.
 Wilson, C. E., 415 Keith & Perry Bldg.
 Wilson, Dora Green, 420 Rialto Bldg.
 Wilson, John, 720 Shukert Bldg.
 Wolf, I. J., 408 Argyle Bldg.
 Wood, D. J., 4 E. 10th St.
 Wood, N. E., Independence, Mo.
 Wooley, Paul V., 309 Argyle Bldg.
 Wyatt, T. E., 3216 Olive St.
 Young, O. O.
 Zwart, B. H., 1019 Prospect Ave.

JASPER COUNTY.

Anderson, F. L., Joplin, Mo.
 Barnett, A. F., Joplin, Mo.
 Blackwell, Z. T., Joplin, Mo.
 Bragdon, G. H., Reeds, Mo.
 Carpenter, A. L., Carl Junction, Mo.
 Chenoweth, L. C., Webb City, Mo.
 Clark, A. B., Joplin, Mo.
 Clark, J. W., Carthage, Mo.
 Cummings, C. C., Joplin, Mo.
 Donohoo, Phillip, Joplin, Mo.
 Freeman, A. B., Joplin, Mo.
 Grantham, S. A., Joplin, Mo.
 Haas, H. R., Joplin, Mo.
 Hall, Elizabeth, Carthage, Mo.
 Harutun, M. B., Joplin, Mo.
 Henry, B. M., Alba, Mo.
 James, R. M., Joplin, Mo.
 Kelso, R. S., Joplin, Mo.
 Ketcham, C. M., Carthage, Mo.
 Kincheloe, M. B., Joplin, Mo.
 Lanyon, Wm. H., Joplin, Mo.
 Mallory, W. H., Joplin, Mo.
 Matthews, L. I., Joplin, Mo.
 Mays, G. I., Joplin, Mo.
 McClure, G. W., Cartersville, Mo.
 McMichael, A. O., Joplin, Mo.
 Miller, G. W., Joplin, Mo.
 Miller, S. H., Joplin, Mo.
 Neff, R. L., Joplin, Mo.
 Pifer, J. D., Joplin, Mo.
 Post, W. B., Carthage, Mo.
 Powers, Everett, Carthage, Mo.
 Powers, H. C., Chitwood, Mo.
 Sanz, George, Webb City, Mo.
 Shelton, M. C., Joplin, Mo.
 Snyder, A. R., Joplin, Mo.
 Spriggs, M. L., Joplin, Mo.
 Steele, W. E., Carthage, Mo.
 Taulbee, J. B., Joplin, Mo.
 Taylor, H. H., Joplin, Mo.
 Winchester, J. M., Joplin, Mo.
 Wolfe, B. F., Joplin, Mo.

JEFFERSON COUNTY.

Bryan, G. G., De Soto, Mo.
 Donnell, R. E., De Soto, Mo.
 Farrar, W. H., De Soto, Mo.
 Gibson, W. E., De Soto, Mo.
 Jones, J. E., Hillsboro, Mo.
 Hamel, A. H., De Soto, Mo.
 Harris, C. G., Festus, Mo.
 Hensley, O. E., Pevely, Mo.
 Long, F. L., Farmington, Mo.
 McNutt, I. N., Pevely, Mo.

JOHNSON COUNTY.

Aber, W. H., Montserrat, Mo.
 Adcock, D. C., Warrensburg, Mo.
 Adcock, J. A. B., Warrensburg, Mo.
 Anderson, J. I., Warrensburg, Mo.
 Anderson, John T., Cornelia, Mo.
 Bozarth, John R., Centerville, Mo.
 Bradley, T. L., Warrensburg, Mo.
 Case, Z., Warrensburg, Mo.
 Crank, A. C., Pittsville, Mo.
 Gilbert, E. A., Warrensburg, Mo.
 Graves, E. A., Kingsville, Mo.
 Hall, O. B., Warrensburg, Mo.
 Johnson, W. E., Warrensburg, Mo.
 Martin, W. L., Chilohowee, Mo.
 Murray, L. F., Holden, Mo.
 Ozias, C. O., Warrensburg, Mo.
 Pare, E. Y., Leeton, Mo.
 Park, Henry, Sweet Springs, Mo.
 Parker, H. F., Warrensburg, Mo.
 Porter, J. E., Knobnoster, Mo.
 Rice, John M., Columbus, Mo.
 Robinson, L. H., Warrensburg, Mo.
 Schofield, L. J., Warrensburg, Mo.
 Schooley, R. C., Robins, Mo.
 Shy, D. E., Knobnoster, Mo.
 Shy, M. P., Knobnoster, Mo.
 Simpson, J. T., Holden, Mo.
 Taylor, W. E., Owsley, Mo.
 Thompson, W. G., Holden, Mo.

KNOX COUNTY.

Brown, L. S., Edina, Mo.
 Jurgens, H., Edina, Mo.

Norheutt, J. R., Knox City, Mo.
 St. John, H. H., Edina, Mo.
 Wilsey, A. R., Hurland, Mo.

LACLEDE COUNTY.

Anderson, J. N., Conway, Mo.
 Atchley, John, Lebanon, Mo.
 Avery, D. I., Lebanon, Mo.
 Billings, J. M., Lebanon, Mo.
 Casey, T. H., Lebanon, Mo.
 Clark, W. J., Conway, Mo.
 Crawford, J. R., Lebanon, Mo.
 Herbert, T. B., Lebanon, Mo.
 Lindsey, J. W., Orla, Mo.
 Lockwood, W. A., Conway, Mo.
 McComb, James, Lebanon, Mo.
 Perkins, J. M., Lebanon, Mo.
 Pinckard, J. A., Lebanon, Mo.
 Prichett, P. L., Lebanon, Mo.
 Reser, J. H. H., Conway, Mo.
 Standard, D. E., 512½ Commercial St.,
 Springfield, Mo.
 Tinsley, J. H., Orla, Mo.
 Ware, T. V., Lebanon, Mo.

LAFAYETTE COUNTY.

Braecklein, W. A., Higginsville, Mo.
 Carter, R. C., Higginsville, Mo.
 Carthrac, Lewis, Corder, Mo.
 Carthrac, Lewis, Jr., Corder, Mo.
 Chalkley, A. J., Corder, Mo.
 Cope, J. Q., Lexington, Mo.
 Fischer, J. G. W., Alma, Mo.
 Fredendall, G. W., Lexington, Mo.
 Fulkerson, J. J., Lexington, Mo.
 Gaines, E. F., Bates City, Mo.
 Harwood, W. G., Dover, Mo.
 Lieser, F. D., Concordia, Mo.
 Lissack, H. M., Lexington, Mo.
 McLennan, T. A., Higginsville, Mo.
 Mann, F. W., Wellington, Mo.
 Mann, J. A., Wellington, Mo.
 Oetting, O. G., Concordia, Mo.
 Ott, C. W., Higginsville, Mo.
 Payne, B. T., Lexington, Mo.
 Payne, N. B., Lexington, Mo.
 Perrie, John, Mayview, Mo.
 Roberts, M. G., Lexington, Mo.
 Ryland, C. T., Lexington, Mo.
 Schneider, J. A., Concordia, Mo.
 Schreiman, F., Concordia, Mo.
 Watts, R. D., Napoleon, Mo.
 Webb, W. C., Higginsville, Mo.

LAWRENCE-STONE.

Andrews, J. P., Marionville, Mo.
 Brown, O. H., Mt. Vernon, Mo.
 Burney, W. S., Miller, Mo.
 Clark, S. M., Halltown, Mo.
 Craven, J. H., Marionville, Mo.
 Doggett, C. R., Marionville, Mo.
 Flemming, J. B., Aurora, Mo.
 Goodrich, R. E., Crane, Mo.
 Gum, L. J., Lawrenceburg, Mo.
 Hardin, D. E., Aurora, Mo.
 Harris, J. A., Mt. Vernon, Mo.
 Henson, L., Galena, Mo.
 Hoffman, D. M., Crane, Mo.
 Holmes, W. M., Marionville, Mo.
 King, C. R., Crane, Mo.
 Loveland, W. S., Verona, Mo.
 Madry, A. H., Aurora, Mo.
 Miller, Thomas, Aurora, Mo.
 Rice, Marion, Stotts City, Mo.
 Rodman, W. W., Pierce City, Mo.
 Roseberry, E. C., Mt. Vernon, Mo.
 Shelton, C. W., Mt. Vernon, Mo.
 Smart, R. W., Marionville, Mo.
 Stevenson, F. S., Aurora, Mo.
 Wade, E. E., School, Mo.
 Wade, J. H., Ponce de Leon, Mo.

LEWIS COUNTY.

Brown, J. C., Lewistown, Mo.
 Cole, Paul E., Steffenville, Mo.
 Dunlop, H. E., Canton, Mo.
 Ellery, Wm., LaGrange, Mo.
 Ellery, Wm. L., LaGrange, Mo.
 Frame, C. N., Ewing, Mo.
 Knight, G. P., Benjamin, Mo.
 McCutchan, G. L., Canton, Mo.

McGlasson, T. F., Lewistown, Mo.
 McKim, H. W., LaBelle, Mo.
 Owens, N. O., LaGrange, Mo.
 Schofield, R. B., Lewistown, Mo.
 Shanks, C. O., Canton, Mo.
 Simpson, W. B., LaBelle, Mo.
 Wilson, R. E., LaBelle, Mo.
 Young, J. A., LaGrange, Mo.

LINCOLN COUNTY.

Diggs, Joseph, Hawk Point, Mo.
 Duwelius, L. H., Briscoe, Mo.
 Knox, James A., Whitesides, Mo.
 Moore, W. L., Truxton, Mo.
 Pendleton, L., Troy, Mo.
 Prewitt, Geo. E., Hawk Point, Mo.
 Smith, W. P., Troy, Mo.
 Strickland, J. R., Moscow Mills, Mo.
 Taylor, A. M., Elsberry, Mo.

LINN COUNTY.

Buck, U. G., Rothville, Mo.
 Burke, F. W., Laclede, Mo.
 Burke, J. L., Laclede, Mo.
 Cockran, F. B., Brookfield, Mo.
 Dryden, U. C., Purdin, Mo.
 Ellis, W. W., Marceline, Mo.
 Eure, J. B., Brookfield, Mo.
 Fore, T. P., Brookfield, Mo.
 Frazier, Leland, Marceline, Mo.
 Haley, Robert, Brookfield, Mo.
 Howard, D. F., Brookfield, Mo.
 Jenkins, C. E., Brookfield, Mo.
 Johnson, H. C., Meadville, Mo.
 Lane, J. W., Linneus, Mo.
 Morris, R. H., Linneus, Mo.
 Musgrove, W. H., Eversonville, Mo.
 Oven, T. P., Brookfield, Mo.
 Patrick, P. L., New Boston, Mo.
 Polson, J. T., Laclede, Mo.
 Putman, B. B., Marceline, Mo.
 Putman, Ola, Marceline, Mo.
 Ridings, O. H., Meadville, Mo.
 Scott, W. B., Bucklin, Mo.
 Shepherd, J. D., Meadville, Mo.
 Standly, E. D., Linneus, Mo.
 Standly, Z. T., Laclede, Mo.
 Standly, K. V., Brookfield, Mo.
 Stratton, C. D., Rothville, Mo.
 Thompson, J. M., Meadville, Mo.
 Whaley, R. W., Browning, Mo.

LIVINGSTON COUNTY.

Alexander, G. W., Chula, Mo.
 Barney, R., Chillicothe, Mo.
 Batdorf, F. P., Farmersville, Mo.
 Chaffin, R. E., Belton, Mo.
 Gibson, H. C., Mooresville, Mo.
 Girdner, W. M., Chillicothe, Mo.
 Gordon, David, Chillicothe, Mo.
 Grace, H. M., Chillicothe, Mo.
 Piatt, K. S., Chillicothe, Mo.
 Minor, James C., Chillicothe, Mo.
 Shelton, J. C., Chillicothe, Mo.
 Simpson, A. J., Chillicothe, Mo.
 Simpson, W. R., Chillicothe, Mo.
 Stevens, B. N., Chillicothe, Mo.
 Swope, W. A., Wheeling, Mo.
 Trimble, J. W., Wheeling, Mo.
 White, W. L., Springhill, Mo.
 Yates, D. D., Dawn, Mo.

MACON COUNTY.

Allen, F. W., R.F.D., College Mound, Mo.
 Bradley, W. E., Ethel, Mo.
 Brewington, G. F., Bevier, Mo.
 Dailey, F. B., Keota, Mo.
 Foster, J. P., LaCrosse, Mo.
 Hooper, C. L., Ardmore, Mo.
 Miller, A. B., Macon, Mo.
 Miller, W. H., Macon, Mo.
 Pipkin, W. D., Excello, Mo.
 Raines, A. M., R. F. D., Macon, Mo.
 Reagan, C. W., Macon, Mo.
 Rowland, W. P., Bevier, Mo.
 Smith, E. S., Macon, Mo.
 Smith, C. W., Keota, Mo.
 Tainter, P. R., Callao, Mo.
 Watson, T. S., Bevier, Mo.
 Welch, W. A., Callao, Mo.

MADISON COUNTY.

Anthony, C. A., Fredericktown, Mo.
 Barron, W. H., Mine La Motte, Mo.
 Carr, G. M., Marquand, Mo.
 Davis, C. U., Fredericktown, Mo.
 Dines, G. L., Mine La Motte, Mo.
 Gale, F. W., Marquand, Mo.
 Greenwood, G. H., Fredericktown, Mo.
 Halcy, O., Fredericktown, Mo.
 Newberry, F. R., Fredericktown, Mo.
 Nifong, Wm., Fredericktown, Mo.
 Slaughter, S. C., Fredericktown, Mo.
 Smith, J. K., Fredericktown, Mo.

MARION COUNTY.

Banks, H. L., Hannibal, Mo.
 Baskett, J. N., Hannibal, Mo.
 Blue, A. B., Hannibal, Mo.
 Bounds, E. H., Hannibal, Mo.
 Bourn, J. J., Hannibal, Mo.
 Bush, F. W., Hannibal, Mo.
 Chilton, J. C., Hannibal, Mo.
 Chowning, Thomas, Hannibal, Mo.
 Detweiler, A. J., Hannibal, Mo.
 Dudley, C. R., Hannibal, Mo.
 Farrell, J. J., Hannibal, Mo.
 Glahn, C. P., Palmyra, Mo.
 Goodier, R. H., Hannibal, Mo.
 Guss, W. C., Hannibal, Mo.
 Hays, W. H., Hannibal, Mo.
 Hill, I. E., Hannibal, Mo.
 Hornback, E. T., Hannibal, Mo.
 Howell, J. S., Hannibal, Mo.
 Paxson, C. E., Hannibal, Mo.
 Primm, J. N., Hannibal, Mo.
 Roselle, T. A., Palmyra, Mo.
 Sanford, Silas, Palmyra, Mo.
 Schmidt, R., Hannibal, Mo.
 Shanks, A. L., Hannibal, Mo.
 Smith, S. G., Hannibal, Mo.
 Smith, U. S., Hannibal, Mo.
 Vandiver, C. E., Hannibal, Mo.
 Waldo, E. E., Hannibal, Mo.

MERCER COUNTY.

Bristow, G. M., Princeton, Mo.
 Buren, C. R., Princeton, Mo.
 Chesmore, H. P., Princeton, Mo.
 Wally, H., Coansville, Mo.
 Oyler, H. W., Millgrove, Mo.
 Perry, J. M., Princeton, Mo.
 Pickett, C. P., Mercer, Mo.
 Powell, B. S., Princeton, Mo.

MILLER COUNTY.

Allee, W. L., Eldon, Mo.
 Allee, W. S., Olean, Mo.
 Bennage, J. L., Iberia, Mo.
 Brockman, H. H., Eldon, Mo.
 De Vilbiss, E. F., Eugene, Mo.
 Dixon, W. D., Tuscumbia, Mo.
 Gilleland, J. L., Olean, Mo.
 Kouns, D. H., Tuscumbia, Mo.
 Leslie, Walter H., Spring Garden, Mo.
 Temple, J. W., Eldon, Mo.
 VonGramp, W. A., Iberia, Mo.
 Walker, G. D., Eldon, Mo.

MISSISSIPPI COUNTY.

Chapman, A. W., Charleston, Mo.
 Finley, F. L., Anniston, Mo.
 Hamner, M. D., Bertrand, Mo.
 Lynch, J. W., Charleston, Mo.
 Martin, A. J., East Prairie, Mo.
 Martin, S. F., East Prairie, Mo.
 Miller, E. F., Verdella, Mo.
 Ogilvie, R. K., Charleston, Mo.
 Reid, H. L., Charleston, Mo.

MONITEAU COUNTY.

Allee, E. M., Speed, Mo.
 Bramel, H. W., McGirk, Mo.
 Burke, J. P., California, Mo.
 Crum, J. A., Marion, Mo.
 Dearing, W. A., Jamestown, Mo.
 Freudenberger, H., Clarksburg, Mo.
 Gray, L. M., California, Mo.
 Klueber, H. C., California, Mo.

Lang, J. H., Centertown, Mo.
 Latham, H. W., Latham, Mo.
 Latham, L. L., Latham, Mo.
 Marsh, J. W., Tipton, Mo.
 Norman, J. B., California, Mo.
 Patterson, W. R., Tipton, Mo.
 Popejoy, H. R., High Point, Mo.
 Redmon, S. H., Tipton, Mo.
 Robertson, J. M., Buncheon, Mo.
 Stewart, J. B., Clarksburg, Mo.
 Thorpe, A. V., Jamestown, Mo.
 Wilson, G. S., Fortuna, Mo.

MONROE COUNTY.

Baker, Chas., Santa Fe, Mo.
 Bell, W. T., Stoutville, Mo.
 Brown, J. E., Florida, Mo.
 Cassity, G. H., Tulip, Mo.
 Dixon, C. H., Holliday, Mo.
 Duncan, Edward, Long Branch, Mo.
 Hull, J. R., Monroe City, Mo.
 Lloyd, T. B., Paris, Mo.
 Luesley, M. W., Madison, Mo.
 Madox, Jesse, Madison, Mo.
 McGee, Dan, Paris, Mo.
 McMurry, M. C., Paris, Mo.
 McNutt, W. B. A., Monroe City, Mo.
 Moss, F. M., Paris, Mo.
 Payne, H. G., Paris, Mo.
 Ragsdale, G. M., Paris, Mo.
 Santhern, J. N., Monroe City, Mo.
 Shobe, H. G., Paris, Mo.

MORGAN COUNTY.

Bay, Harry, Florence, Mo.
 Beale, J. T., Versailles, Mo.
 Fry, C. E., Syracuse, Mo.
 Gunn, A. J., Versailles, Mo.
 Lutman, H. N., Versailles, Mo.
 Short, J. S., Versailles, Mo.
 Well, Wm., Versailles, Mo.
 Woods, P. G., Versailles, Mo.

NEWTON COUNTY.

Benton, A. W., Neosho, Mo.
 Bowers, Horace, Neosho, Mo.
 Bridges, J. M., Tipton Ford, Mo.
 Brown, W. D., Newtonia, Mo.
 Campbell, W. M., Seneca, Mo.
 Chapman, U. S., Diamond, Mo.
 Doty, E. G., Anderson, Mo.
 Foster, H. F., Neosho, Mo.
 Hancock, J. B., Newtonia, Mo.
 Hodges, J. J., Granby, Mo.
 Lamson, J. W., Neosho, Mo.
 Lamson, R. C., Neosho, Mo.
 Langley, J. W., Granby, Mo.
 Maas, A., Neosho, Mo.
 Porter, H. L., Seneca, Mo.
 Roseberry, E. M., Neosho, Mo.
 Weems, D. L., Neosho, Mo.
 Wills, R. L., Neosho, Mo.

NODAWAY COUNTY.

Allen, A. B., Maryville, Mo.
 Anthony, F. R., Maryville, Mo.
 Barnett, A. D., Guilford, Mo.
 Crowson, E. L., Pickering, Mo.
 Cummings, K. C., Maryville, Mo.
 Day, Hiram, Parnell, Mo.
 Dean, C. E., Burlington Junction, Mo.
 Dean, J. W., Maryville, Mo.
 Dean, L. E., Maryville, Mo.
 Frank, C. E., Maryville, Mo.
 Goodson, H. C., Hopkins, Mo.
 Hereford, W. B., Pickering, Mo.
 Howell, C. F., Bedison, Mo.
 Johns, Gomer, Wilcox, Mo.
 Kirk, C. W., Hopkins, Mo.
 Koch, C. D., Maryville, Mo.
 Larrabee, J. A., Barnard, Mo.
 McClanahan, J. M., Guilford, Mo.
 Nash, G. A., Maryville, Mo.
 Pierpoint, J. E., Skidmore, Mo.
 Pollard, M. M., Barnard, Mo.
 Sargent, D. A., Hopkins, Mo.
 Saylor, H. L., 215 Citizens Bank, Des Moines, Ia.

Smith, D. G., Arkoe, Mo.
 Stuckie, W. P., Clyde, Mo.
 Todd, J. H., Maryville, Mo.
 Wallis, F. C., Maryville, Mo.
 Wallis, Wm. M. Jr., Maryville, Mo.
 Wallis, W. M. Sr., Maryville, Mo.

PETTIS COUNTY.

(All Addresses Sedalia, Mo., unless otherwise stated.)

Abbers, E. A., Smithton, Mo.
 Alderman, M. C., Porter Bldg.
 Bishop, W. T., Hughesville, Mo.
 Bohling, C., 5th & Ohio.
 Bronson, I. T., 2nd & Ohio.
 Campbell, A. J., 3rd & Ohio.
 Cartwright, C. C., R. F. D. No. 1, Sedalia, Mo.
 Clabaugh, O. W., Greenridge, Mo.
 Cole, H. B., Porter Bldg.
 Collins, M. T., 219 Ilgenfritz Bldg.
 Cowan, W. G., 504 S. Ohio.
 Dunlap, W. O., 108 W. Main St.
 Dyer, D. P., Dresden, Mo.
 Evans, W. H., Beaman, Mo.
 Ferguson, Leslie, Greenridge, Mo.
 Ferguson, W. J., 321 S. Ohio.
 Halton, O. H., 504 S. Ohio.
 Harris, W. B., Georgetown, Mo.
 Heaton, A. H., 109 W. 7th St.
 Hite, H. A., Greenridge, Mo.
 Hubbard, J. D., Versailles, Mo.
 Kelly, S. G., Ilgenfritz Bldg.
 Knott, Minerva, Solano, New Mexico.
 Love, J. G., State Hospital, Nevada, Mo.
 McNeil, C. A., M. K. & T. Hospital.
 McNeil, G. E., M. K. & T. Hospital.
 Mitchell, J. E., R. F. D. No. 1, Hughesville, Mo.
 Morley, Frank R., 1103A E. 5th St.
 Nasse, Edmund, 2nd & Ohio.
 Overstreet, W. C., 312 S. Ohio.
 Prowell, J. D., Longwood, Mo.
 Sands, M. L., Cole Camp, Mo.
 Shirk, W. S., Porter Bldg.
 Simonds, Wallace, Cassidy Bldg.
 Sutton, F. L., 504 S. Ohio.
 Titsworth, Guy, 1103A E. 5th St.
 Trader, C. S., 5th & Ohio.
 Tucker, A. J., 3rd & Ohio.
 Walker, W. E., Lamonte, Mo.
 Wood, E. A., Maywood Hospital.
 Yancey, E. F., M. K. & T. Hospital.

PHELPS COUNTY.

Baysinger, S. L., Rolla, Mo.
 Breuer, W. H., St. James, Mo.
 Breuer, R. E., Newburg, Mo.
 Burns, W. F., Newburg, Mo.
 Cowan, R. B., Edgar Springs, Mo.
 Fulbright, C. H., St. James, Mo.
 Johnson, R. L., Rolla, Mo.
 Livingston, A. A., Elk Prairie, Mo.
 Love, J. G., State Hospital, Nevada, Mo.
 Matlock, L. J., St. James, Mo.
 Orrick, G. W., Rolla, Mo.
 Reed, H. L., Beulah, Mo.
 Rowe, S. B., Rolla, Mo.
 Short, Martha, Rolla, Mo.
 Smith, B. T., Newburg, Mo.
 Smith, W. S., Rolla, Mo.

PIKE COUNTY.

Bankhead, J. E., Clarksville, Mo.
 Biggs, M. O., Bowling Green, Mo.
 Davis, J. D., Louisiana, Mo.
 Dreyfus, J. W., Louisiana, Mo.
 Edgell, O. K., Cyrene, Mo.
 Paxton, Guy L., Cyrene, Mo.
 Pollard, W. H., Eolia, Mo.
 Smith, C. A., Annada, Mo.
 Treadway, W. W., Clarksville, Mo.
 Whiteside, E. E., Belleflower, Mo.

PLATTE COUNTY.

Chastain, C. H., Weston, Mo.
 Clark, H. M., Platte City, Mo.
 Coffey, G. C., Platte City, Mo.

Cowan, Lee, Iatan, Mo.
 Dinwiddie, F. G., Camden Point, Mo.
 Gardener, P. L., Waldron, Mo.
 Hale, J. M., Dearborn, Mo.
 Herndon, A. S., Camden Point, Mo.
 Hull, E. R., Camden Point, Mo.
 Mizener, J. L., Edgerton, Mo.
 Naylor, Alva, Platte City, Mo.
 Patterson, H. H., Edgerton, Mo.
 Redman, Spencer, Platte City, Mo.
 Shafer, F. M., Edgerton, Mo.
 Shafer, L. A., Edgerton, Mo.
 Shultz, J. W., Weston, Mo.
 Swaney, W. D., Linkville, Mo.
 Underwood, J., Parkville, Mo.
 Winter, J. H., Parkville, Mo.
 Yokum, G. D., Parkville, Mo.

POLK COUNTY.

Brown, C. H., Fair Play, Mo.
 Cousins, S. W., Morrisville, Mo.
 Drake, W. D., Bolivar, Mo.
 Hopkins, W. S., Bolivar, Mo.
 Hunt, L. L., Fair Play, Mo.
 Leafman, J. E., Bolivar, Mo.
 Mitchell, A. P., Bolivar, Mo.
 Paris, R. W., Morrisville, Mo.
 Roberts, J. F., Bolivar, Mo.

PULASKI COUNTY.

Carter, W. C., Dixon, Mo.
 Murphy, H. C., Richland, Mo.
 Oliver, E. A., Richland, Mo.
 Ragan, W. L., Richland, Mo.
 Rolens, L. E., Dixon, Mo.
 Rolens, M. F., Dixon, Mo.
 Sell, W. J., Waynesville, Mo.
 Stebbins, N. I., Crocker, Mo.
 Tice, L., Waynesville, Mo.

PUTNAM COUNTY.

Carrier, C. H., Unionville, Mo.
 Cozad, F. A., Powerville, Mo.
 Geisinger, E. J., Unionville, Mo.
 Haynes, Lee, Mendota, Mo.
 Montgomery, E. A., Unionville, Mo.
 Noel, I. F., Unionville, Mo.
 Rice, F. D., Lucerne, Mo.
 Townsend, J. A., Unionville.

RALLS COUNTY.

Birney, W. L., Oakwood, Mo.
 Downing, T. J., New London, Mo.
 Graves, C. H., Center, Mo.
 Harwood, W. S., Rensselaer, Mo.
 Hendrix, W. G., New London, Mo.
 McCullon, R. W., Center, Mo.
 Monroe, Thomas, Center, Mo.
 Walter, Fred, Perry, Mo.
 Waters, W. T., New London, Mo.
 Winn, M., Ilasco, Mo.
 Wix, F. M., Center, Mo.

RANDOLPH COUNTY.

Barnhart, D. A., Huntsville, Mo.
 Bragg, G. G., Huntsville, Mo.
 Clapp, C. B., Moberly, Mo.
 Cuppidge, G. O., Moberly, Mo.
 Dickerson, W., Renick, Mo.
 Dinwiddie, T. H., Higbee, Mo.
 Dutton, C. K., Moberly, Mo.
 Hickerson, E. R., Moberly, Mo.
 Johnson, G. A., Moberly, Mo.
 Lowery, John A., Clifton Hill, Mo.
 Mangus, C. W., Moberly, Mo.
 Mangus, T. D., Moberly, Mo.
 Mitchell, R. A., Clark, Mo.
 Terrill, W. R., Clifton Hill, Mo.

RAY COUNTY.

Ball, J. E., Richmond, Mo.
 Clark, J. F., Rayville, Mo.
 Cook, T. B., Rayville, Mo.

Ellis, L. E., Orrick, Mo.
 Estill, W. G., Lawson, Mo.
 Etherton, W. C., Camden, Mo.
 Greene, L. D., Richmond, Mo.
 Grimes, Marvin, Hardin, Mo.
 Hamilton, R. L., Richmond, Mo.
 Higdon, E. F., Richmond, Mo.
 Joiner, G. W., Rayville, Mo.
 Major, H. S., Hardin, Mo.
 McGaugh, E. T., Richmond, Mo.
 Rentfro, E. W., Rayville, Mo.
 Roney, J. H., Lawson, Mo.
 Sevier, Robert, Richmond, Mo.
 Sheetz, Robert, Orrick, Mo.
 Shotwell, C. B., Richmond, Mo.
 Smith, Geo. W., Henrietta, Mo.
 Smith, James W., Richmond, Mo.
 Stapp, J. H., Hardin, Mo.
 Todd, Geo. O., Lawson, Mo.

RIPLEY COUNTY.

Bennie, W. D., Naylor, Mo.
 Posey, J. J., Naylor, Mo.
 Procter, S. A., Doniphan, Mo.
 Redwine, J. T., Doniphan, Mo.

SALINE COUNTY.

Gore, A. E., Marshall, Mo.
 Gore, D. C., Marshall, Mo.
 Hall, J. R., Marshall, Mo.
 Harris, J. E., Marshall, Mo.
 Harrison, Wm., Marshall, Mo.
 Howard, J. H., Slater, Mo.
 Jarvis, W. M., Slater, Mo.
 Manning, D. T., Marshall, Mo.
 McGuire, M. S., Arrow Rock, Mo.
 Owen, J. H., Sweet Springs, Mo.
 Richart, G. A., Blackburn, Mo.
 Ringen, R. H., Sweet Springs, Mo.
 Shuck, L. J., Nelson, Mo.
 Spoots, B. M., Marshall, Mo.
 Stouffer, R. W., Napton, Mo.
 Walker, E. N., Grand Pass, Mo.
 Whittington, W. L., 415 Albemoral St.,
 St. Joseph, Mo.

ST. CHARLES COUNTY.

Baltzer, H. F. W., Cottleville, Mo.
 Bitter, Carl, St. Charles, Mo.
 Corley, H. N., St. Paul, Mo.
 Dunn, F., St. Peters, Mo.
 Glosemeyer, L. H., O'Fallon, Mo.
 Gossow, A. A., St. Charles, Mo.
 Hardin, T. L., St. Charles, Mo.
 Jackson, T. J., St. Charles, Mo.
 Martin, J., Hamburg, Mo.
 Morgner, Omar, St. Charles, Mo.
 Mudd, J. R., St. Charles, Mo.
 Sandfos, Frank, Portage Des Sioux,
 Mo.
 Stumberg, B. K., St. Charles, Mo.
 Tainter, F. J., St. Charles, Mo.
 Wentker, B. P., St. Charles, Mo.
 Wiegner, T. L., Flint Hill, Mo.

ST. CLAIR COUNTY.

Bell, W. E., Osceola, Mo.
 Cline, C. W., Appleton City, Mo.
 Landaker, C. L., Collins, Mo.
 Mason, W. J., Weaubleau, Mo.
 Seevers, Ruth, Osceola, Mo.
 Smith, R. J., Johnson City, Mo.
 Stratton, L. S., Roscoe, Mo.
 Williams, D. B., Osceola, Mo.

ST. FRANCOIS COUNTY.

Appleberry, R., Leadwood, Mo.
 English, J. H., Farmington, Mo.
 Evans, A. L., Bonne Terre, Mo.
 Haney, T. L., Flat River, Mo.
 Keith, F. L., Flat River, Mo.
 McKenzie, D. H., Leadwood, Mo.
 Marshall, Albert, Bonne Terre, Mo.
 Poston, C. P., Bonne Terre, Mo.
 Robinson, B. I., Farmington, Mo.
 Stammer, F. W., Bismark, Mo.
 Williams, G. B., Flat River, Mo.
 Woods, S. Elliott, Bonne Terre, Mo.

STE. GENEVIEVE COUNTY.

Ford, Edward, River aux Vases, Mo.
 Hertich, C. J., Ste. Genevieve, Mo.
 Hinch, F. E., Ste. Genevieve, Mo.
 Jarvis, N. W., Bloomsdale, Mo.
 Lanning, R. W., Ste. Genevieve, Mo.
 Moore, C., St. Marys, Mo.
 Morgansteen, H. J., Weingarten, Mo.
 Rutledge, G. M., Ste. Genevieve, Mo.
 Shirley, J. M., St. Marys, Mo.
 Wilkins, J. A., St. Marys, Mo.

ST. LOUIS COUNTY.

Armstrong, C. L., Webster Groves, Mo.
 Armstrong, J. H., Kirkwood, Mo.
 Baker, Marshall, Webster Groves, Mo.
 Brossard, P. M., Maplewood, Mo.
 Carter, Howard, Webster Groves, Mo.
 Cape, L. W., Maplewood, Mo.
 Coleman, H. T., Pattonville, Mo.
 Dalton, M., Fenton, Mo.
 Denny, R. B., Eureka, Mo.
 Douglas, J. T., Ferguson, Mo.
 Dunnivant, C. A., Kirkwood, Mo.
 Forsyth, R. C., Kirkwood, Mo.
 Greensfelder, H. B., Kirkwood, Mo.
 Guibor, F. E., Maplewood, Mo.
 Jensen, N. N., Florissant, Mo.
 Koch, O. W., Ballwin, Mo.
 Maisch, Aug., Manchester, Mo.
 Miles, H., Webster Groves, Mo.
 Mills, R. W., Webster Groves, Mo.
 Moore, R. D., Central, Mo.
 O'Brien, L. F., Sappington, Mo.
 Pfister, John D., Creve Coeur, Mo.
 Pitman, John, Kirkwood, Mo.
 Randle, H. T., Clayton, Mo.
 Thurman, E. J., 2805 S. Kingshighway,
 St. Louis.
 Townsend, W. H., Maplewood, Mo.
 Will, S. J., Jefferson Barracks, Mo.
 Wyer, H. G., Kirkwood, Mo.
 Zuppann, Chas., Ballwin, Mo.

ST. LOUIS MEDICAL SOCIETY.

(All addresses St. Louis, Mo., unless
 otherwise specified.)

Abeken, F. W., 3531 S. Broadway.
 Albrecht, Franklin H., Humboldt Bldg.
 Alexander, Robert D., Mo. Pac. Hosp.
 Allison, Nathaniel, Humboldt Bldg.
 Alt, Adolf, 316 Metropolitan Bldg.
 Althans, Carl, 2024 S. Jefferson Ave.
 Allyn, Asa B., 5004 Arsenal St.
 Ambrose, Olney A., 6125 Barmter Ave.
 Ameiss, Frederick C., Vanol Bldg.
 Amerland, J. H., 2739 Chippewa St.
 Amos, Newton W., 3001 Olive St.
 Amyx, Robert F., 1943 N. 11th St.
 Apperson, Edwin L., 912 N. Taylor Ave.
 Atkinson, Robert C., 3002 Lafayette Ave.
 Auf Der Heide, Wm. D., 2752 Arsenal
 St.
 Auler, Hugo A., 2708 Lynch St.
 Ayars, Treston R., 3901 Easton Ave.
 Babler, Edmund A., 4826 Delmar Ave.
 Bailey, Fred Warren, 3555A Arsenal St.
 Baker, Richard W., Altadena, Calif.
 Baker, William M., 5424 Easton Ave.
 Ball, Charles H., 4109A Lee Ave.
 Ball, James M., 4500 Olive St.
 Ball, Otho F., 603 Metropolitan Bldg.
 Barck, Carl, Humboldt Bldg.
 Barclay, Robert, 3894 Washington Ave.
 Bardenheier, F. G. A., 900 S. 4th St.
 Barker, J. Wm., Centenary Hospital.
 Barker, William S., 1101 Tyler St.
 Barnes, A. S., Sr., 5434 Vernon Ave.
 Barnes, A. S., Jr., 210 Mo. Trust Bldg.
 Barnes, Percival C., 5434 Maple Ave.
 Barnes, Rollin H., 219 Metropolitan
 Bldg.
 Barr, Clarence M., Female Hospital.
 Barrington, Richard L., 208 Old Custom
 House.
 Bartlett, Willard, 4257 Washington Ave.
 Bartscher, Hugo W., 829 Bremen Ave.
 Bassett, Samuel T., City Hospital.
 Bauduy, Jerome K., 340 N. Spring Ave.

Bauer, Charles E., 2104 N. 14th St.
 Baumgarten, Gustav, Humboldt Bldg.
 Baumgarten, Walter, Humboldt Bldg.
 Baumgartner, Conrad, 2108 Russell Ave.
 Becker, William H., 4743 Labadie Ave.
 Beckham, Genevieve S., 404 Century
 Bldg.

Bedal, Adelheid C., 4367 Delmar Ave.
 Behrens, Louis H., 301 Times Bldg.
 Benker, Oscar H., 3618 S. Jefferson Ave.
 Bennett, Floyd W., 2837 Park Ave.
 Benson, Benjamin G., 2136 Benton St.
 Bishop, F. L., 4271 Washington Blvd.
 Blair, Vilray P., Linmar Bldg.
 Blattner, Fred O., 233 S. Jefferson Ave.
 Bliss, Malcolm A., Humboldt Bldg.
 Bock, Arminius F., 1109 N. Grand Ave.
 Boehm, Joseph L., 8th & Morgan Sts.
 Boemler, George, 1922 St. Louis Ave.
 Boggs, John D., 813 N. 18th St.
 Bohannon, Burton, 210 S. Jefferson Ave.
 Boisliniere, Louis C., 3561 Olive St.
 Bond, H. Wheeler, 17 Vandeventer Pl.
 Bond, Young H., 426 N. Grand Ave.
 Boogher, Frank K., High & Carr Sts.
 Boogher, Leland, 512 Mo. Trust Bldg.
 Booth, David S., 425 Metropolitan Bldg.
 Boreck, Edward, 3928 N. 20th St.
 Botts, McDowell, Frisco Hospital.
 Bradley, A. H., 619 Metropolitan Bldg.
 Brady, Jules M., 1467 Union Blvd.
 Brandenburger, L., 2900 Eads Ave.
 Brennan, John W., 2001 Olive St.
 Brookes, Henry S., 3557 Lafayette Ave.
 Brooks, Fred C., Grand & Lindell Aves.
 Broome, G. Wiley, 619 N. Kingshigh-
 way.

Brown, John Y., 611 Metropolitan Bldg.
 Bryan, R. Shepard, 735 Century Bldg.
 Bryan, Wm. M. C., 3858 Westminster Pl.
 Buchanan, J. M., 721 N. Kingshighway.
 Buckwalter, John C., 309 Century Bldg.
 Buhman, Rudolph, 5264 Page Ave.
 Bunch, Rodney J., City Hospital.
 Burford, Cyrus E., 955 Hamilton Ave.
 Burnett, Edwin C., 548 Century Bldg.
 Burns, Robert, Lister Bldg.
 Cadwallader, I. H., 919 N. Taylor Ave.
 Cale, George W., 12 Lennox Pl.
 Calhoun, J. G., 601 Metropolitan Bldg.
 Calnane, John A., 5268 Maple Ave.
 Cameron, Solon, 4552 Ashland Ave.
 Campbell, A. V., 430 Globe-Democrat
 Bldg.

Campbell, Given, 3429 Morgan St.
 Campbell, O. H., 3542 Washington Ave.
 Cape, Leander W., 7396 Hazel Ave.
 Caplan, Leo, Lister Building.
 Carman, Russell D., 4318 Olive St.
 Carson, Gibbon W., 301 Century Bldg.
 Carson, Norman B., Humboldt Bldg.
 Chaddock, Charles G., Humboldt Bldg.
 Chapman, Henry N., 3821 Delmar Blvd.
 Charles, Joseph W., Humboldt Bldg.
 Clapper, William L., 5004 Delmar Blvd.
 Clark, E. S., 2713 Washington Ave.
 Clarke, B. William, Vanol Bldg.
 Clemens, J. R., 416 Metropolitan Bldg.
 Clopton, Malvern B., Humboldt Bldg.
 Collasowitz, A., 1500 Chouteau Ave.
 Connolly, P. D., 2556 N. Grand Ave.
 Cook, Geo. E., 1739 N. 9th St.
 Cook, Jerome E., 4133 Laclede Ave.
 Cooley, Edward L., 937 Hamilton Ave.
 Crandall, Geo. C., 4283 Olive St.
 Creveling, H. Clay, Humboldt Bldg.
 Crossen, Harry S., 4477 Delmar Blvd.
 Culp, Earl E., 2928 N. Vandeventer Ave.
 Cummings, Harry J., 219 Metropolitan
 Bldg.

Curtis, A. N., 4205 Virginia Ave.
 Dalton, H. C., 1308A N. Grand Ave.
 Dames, Alphonse F., Easton & Good-
 fellow Aves.
 Darden, John M., 219 Frisco Bldg.
 Davis, Louis H., 1030 Morrison Ave.
 Davis, Robert H., Lister Bldg.
 Davis, Wheeler, 5013A Page Ave.
 Dean, Jno. McHL, 420 Metropolitan Bldg.
 DeVorkin, Moses I., 7th & Franklin Ave.
 Deutsch, Wm. S., 3135 Washington Ave.
 Dickerson, Harry W., 3848 Cook Ave.
 Dickerson, Wilmer L., 5424 Easton Ave.

- Dixon, Chas. H., Lister Bldg.
 Dorsett, E. Lee, 5070 Washington Ave.
 Dorsett, Walter B., Linmar Bldg.
 Doyle, Wm. J., 2312 Washington Ave.
 Drake, G. S., Jr., 3534 Washington Ave.
 Drescher, Fred. B., 3860 S. Broadway.
 Dudley, Geo. F., 4043 McPherson Ave.
 Duncan, John H., Humboldt Bldg.
 Dutzi, August, 325 Souland St.
 Dwyer, Michael J., 822 S. Ewing Ave.
 Eberlein, Edwin W., 1208 Dillon St.
 Ehrenfest, H., 626 Metropolitan Bldg.
 Ehrenreich, Herman S., 1620 Carr St.
 Eidmann, W. P., 3160 Morganford Rd.
 Elbrecht, Oscar, Female Hospital.
 Elmer, Warren P., 346 N. Boyle Ave.
 Engelbach, Wm., Humboldt Bldg.
 Epstein, Meyer J., 4046 McPherson Ave.
 Esselbruegge, F. C., 3740 N. 11th St.
 Ewing, Arthur E., 5956 Cabanne Ave.
 Ewing, Fayette C., 450 Century Bldg.
 Eyer mann, Edwin H., 1800 S. Broadway.
 Faber, John E., 2133 S. Jefferson Ave.
 Fahlen, Fred, Humboldt Bldg.
 Falk, John C., 4568 Page Ave.
 Farrar, John O'F., Lister Bldg.
 Ferrel, H. E., Grand & Franklin Aves.
 Fisch, Carl, 3212 Pine St.
 Fischer, Waldemar E., Linmar Bldg.
 Fisher, Juniatius A., 5924 A Easton Ave.
 Fleming, A. W., 4137 Manchester Ave.
 Ford, W. H., G. D., Washington, D. C.
 Forster, Davis, 1115 Union Ave.
 Forster, Otto E., 513 Carleton Bldg.
 Foster, Wm. H., 4065 A Chouteau Ave.
 Fowler, S. R., 508 Carleton Bldg.
 Frankenthal, M. A., 4163 McPherson Ave.
 Frazer, H. S., 1111 Chouteau Ave.
 Freudenstein, Wm. H., 306 S. Ewing Ave.
 Freund, Newton M., 1440 S. 18th St.
 Friedman, Jacob, 308 N. 6th St.
 Frielingsdorf, E. H., 2202 S. Broadway.
 Fries, William A., 1544 S. Broadway.
 Fry, Frank R., Humboldt Bldg.
 Fuchs, W. H., 3202 Lafayette Ave.
 Fuhrmann, R. H., 3221 California Ave.
 Fulton, A. L., 617 Chouteau Ave.
 Funkhouser, R. M., 4354 Olive St.
 Furney, Elliott E., 3417 Morgan St.
 Gallagher, John F., 919 N. Sarah St.
 Garstang, D. Bule, Linmar Bldg.
 Gayler, Wenzel C., 3904 Laclede Ave.
 Geitz, Henry A., Humboldt Bldg.
 Gellhorn, George, Linmar Bldg.
 Glasgow, Frank A., 3894 Washington.
 Glennon, W. P., 420 Metropolitan Bldg.
 Godfrey, Geo. B., 900 S. 4th St.
 Goebel, Arthur, 3508 Manchester Ave.
 Goldstein, Max A., 3858 Westminster Pl.
 Goodwin, E. J., 603 Metropolitan Bldg.
 Gordon, F. N., 1542 Mississippi Ave.
 Gorin, M. Geo., 4225 W. Belle Pl.
 Gradwohl, R. B. H., 223 Victoria Bldg.
 Graham, Isaac E., 4577 Page Ave.
 Graham, Thomas E., City Dispensary, 11th & Market Sts.
 Grant, John M., 536 N. Taylor Ave.
 Graul, Henry P., 3353 Nebraska Ave.
 Graul, John D., 3512 Crittenden St.
 Graul, Robert E., 2905 Cherokee St.
 Graves, Wm. W., 727 Metropolitan Bldg.
 Gray, Isabel S., 333 N. Euclid Ave.
 Gray, Robert Q., Linmar Bldg.
 Green, John, Jr., 625 Metropolitan Bldg.
 Greer, Edward O., 2750 Park Ave.
 Gregg, Arthur M., 5800 Arsenal St.
 Greiner, Theodore, 5534 A Easton Ave.
 Griffin, Patrick H., 4504 Easton Ave.
 Grindon, Joseph, 3894 Washington Ave.
 Gross, Julius H., 306 Oriol Bldg.
 Grosse, Louis W., 3665 Juniatia St.
 Grote, Wm. F., 1225 Sullivan Ave.
 Guggenheim, L. T., 4058 Lindell Blvd.
 Guhman, Chas. N., 4298 Finney Ave.
 Guhman, J. C., 4531 Washington Ave.
 Guhman, M. G., 3505 N. Jefferson Ave.
 Gunlach, Arthur, 2202 University St.
 Haase, Moses E., 4263 W. Pine Blvd.
 Habermaas, Albert, 3817 Cleveland Ave.
 Hall, Harry R., 925 Goodfellow Ave.
 Hall, W. A., 1597 Tower Grove Ave.
 Hallam, John C., 301 Mermod-Jaccard Bldg.
 Hardaway, Wm. A., Lister Bldg.
 Hardy, Joseph, 7620 S. Broadway.
 Hardy, Wm. F., 2302 S. Jefferson Ave.
 Harmann, Martin F., 3441 N. 9th, St.
 Harnisch, Henry J., 2407 S. 18th St.
 Harral, Walter E., 6201 Etzel Ave.
 Harrell, H. Jackson, 4217 Olive St.
 Harris, Downey L., 5001 Morgan St.
 Harscher, Andrew, 3559 Marine Ave.
 Hartmann, Jacob A., 1228 S. Broadway.
 Hartwig, Otto A., 219 N. 14th St.
 Hauck, E. F., 1638 S. Jefferson Ave.
 Hauck, Louis, 3555 A Arsenal St.
 Hawley, Nelson J., 3864 Cleveland Ave.
 Hawley, Thomas S., 3065 Easton Ave.
 Hempelmann, Louis H., 626 Metropolitan Bldg.
 Henckler, Emil H., 3500 N. 14th St.
 Henderson, Frank L., Humboldt Bldg.
 Henke, August F., 2210 Howard St.
 Hennerich, Jos. P., 2919 S. Broadway.
 Henske, Andrew A., 1504 St. Louis Ave.
 Henske, A. C., 2435 A N. Vandeventer Ave.
 Herchenroeder, L. C., 2904 Park Ave.
 Hermann, Henry W., 3654 Delmar Ave.
 Heuer, Philip J., Humboldt Bldg.
 Heyer, Chas., 910 N. 10th St.
 Hill, Roland, 4605 Delmar Ave.
 Hinchey, Frank, Humboldt Bldg.
 Hirschi, Wm. T., 2306 St. Louis Ave.
 Hochdoerfer, D. F., 3410 California Ave.
 Hoeffer, John P., 2304 S. Broadway.
 Hoffmann, Philip, 3337 Washington Ave.
 Hoge, M. W., 601 Metropolitan Bldg.
 Hogeboom, Roche W., Frisco Hospital.
 Holman, Richard S., 3951 Delmar Ave.
 Holt, Elmer E., 1532 Franklin Ave.
 Holtgrewe, F. W., 1601 Blair Ave.
 Homan, George, 323 Odd Fellows Bldg.
 Hopkins, Milton J., 3402 Pine St.
 Hopkins, Ross, 1055 Hamilton Ave.
 Hopkins, Thomas A., 319 Century Bldg.
 Houwink, Joseph J., Humboldt Bldg.
 Howard, O. L., 4213 Natural Bridge Rd.
 Huber, Julius B., 2752 Chippewa St.
 Huelsmann, Leo C., 2504 N. 14th St.
 Hughes, Harry S., 1234 Hodiarnont Ave.
 Hughes, Marc Ray, 519 Metropolitan Bldg.
 Humphrey, J. Harrison, 212 Ozark Bldg.
 Hyndman, Chas. E., Colonial Bldg.
 Hypes, Benjamin M., 2005 Victor St.
 Ilg, Theodore, 3029 S. Grand Ave.
 Iralson, Abraham, 6200 Columbia Ave.
 Jacobs, Max W., 3000 Olive St.
 Jacobson, Henry, 301 Mo. Trust Bldg.
 Jacobson, Jacob, 5598 Bartmer Ave.
 James, John A., 1006 Carleton Bldg.
 Jennings, J. Ellis, 508 Carleton Bldg.
 Jennings, M. D., 4101 Washington Ave.
 Johnson, E. Horace, 2423 N. Grand Ave.
 Johnson, Frank P., 3741 Finney Ave.
 Johnson, Harry McC., Linmar Bldg.
 Jonas, Ernst, 465 N. Taylor Ave.
 Jones, M. D., 4068 Washington Ave.
 Jungk, Carl W., 2249 S. Jefferson Ave.
 Kane, R. Emmet, Humboldt Bldg.
 Keber, John B., 3832 W. Pine St.
 Keehn, Gustav A., 2702 N. Grand Ave.
 Kennedy, Andrew F., 416 Mermod-Jaccard Bldg.
 Kennedy, Walter U., 1121 Cass Ave.
 Kern, B. C., 5800 Arsenal St.
 Kern, John H., 3916 N. Grand Ave.
 Kessler, E. H., 3446 Shenandoah Ave.
 Kieffer, Alonzo R., 4268 W. Belle Pl.
 Kieffer, V. B., 518 Metropolitan Bldg.
 Kier, William F., 3609 Lindell Blvd.
 Kimball, A. C., Grand & Franklin Aves.
 Kimbrough, John S., Humboldt Bldg.
 Kirchner, Walter, C. G., City Hospital.
 Klein, Sebastian, 1291 N. Grand Ave.
 Klenk, Chas. L., 2105 S. Broadway.
 Klie, Constantine M. T., 2429 Wren Ave.
 Klie, G. H. Charles, 5100 N. Broadway.
 Klinefelter, M. L., 704 N. Taylor Ave.
 Klokke, W. Emil, 1316 Mississippi Ave.
 Koenig, George W., 740 S. 4th St.
 Koetter, Albert F., 1023 N. Grand Ave.
 Kolbenheyer, Fred., 2006 Lafayette Ave.
 Kollme, Otto, 2354 Park Ave.
 Koontz, Carl J., 793 Aubert Ave.
 Krebs, Franz J. V., 1906 St. Louis Ave.

- Krebs, George A., 2709 S. 11th St.
 Krehning, Wm. G., 4041A St. Louis Ave.
 Kroeger, G. B., 3622 Garfield Ave.
 Krug, Frederick H., 2506 N. 15th St.
 Kuhlmann, F. C., 2135 St. Louis Ave.
 Kuhn, Daniel, 1746 Chouteau Ave.
 Kurtzborn, E. E., 5005A Delmar Ave.
 Lare, Harry S. P., 4644 Morgan St.
 Lawew, John T., Olivia Bldg.
 Lawrence, Wm. S., 1913 N. Grand Ave.
 Leavy, John A., 4340 Morgan St.
 Leggat, Abraham C., Chemical Bldg.
 Leighton, Wm. E., 346 N. Boyle Ave.
 Lemen, Joseph E., Vanol Bldg.
 Levy, Aaron, 4500 Olive St.
 Lewis, Bransford, 1050 Century Bldg.
 Lightner, C. R., 617 Metropolitan Bldg.
 Link, Jos. J., 211 Metropolitan Bldg.
 Lipsitz, S. T., City Hospital.
 Loeb, Hanau W., Humboldt Bldg.
 Loeb, Virgil, Humboldt Bldg.
 Loewenstein, H. M., 2615 N. Taylor Ave.
 Loftus, Wm. V., 4911 Page Ave.
 Long, Jos. M., 513 N. Sarah St.
 Luedde, Wm. H., 310 Metropolitan Bldg.
 Luhn, Walter D., 2839A Cherokee St.
 Lund, Herluf G., 1050 Century Bldg.
 Lutton, Lionel S., 1023 N. Grand Ave.
 Lutz, Frank J., 1630 S. Grand Ave.
 Lyman, Harry W., 802 Carleton Bldg.
 Lyon, George E., 732 Planters Hotel.
 Lyon, Hartwell N., Humboldt Bldg.
 McAmis, L. Clifford, Humboldt Bldg.
 McBratney, E. W., 7619 S. Broadway.
 McCandless, Wm. A., 5026 Washington Ave.
 McConnell, Guthrie, 4421 Berlin Ave.
 McGann, Peter J., 607 S. Broadway.
 McLean, Mary H., 4339 Delmar Ave.
 Marchildon, John W., Laclede & Vandeventer Aves.
 Mardorf, Wm. C., 3634 Shenandoah Ave.
 Marks, Heine, 2930 Morgan St.
 Marquardt, A. V., 522 Century Bldg.
 Martin, Chas. P., 4111 N. Grand Ave.
 Martin, Tillie A., 426 Metropolitan Bldg.
 Marx, Ella, 4269 Delmar Ave.
 Max, Clarence O. C., 3862A Olive St.
 May, Albert, 1803 Morgan St.
 Mayes, Joseph F., 1801A Olive St.
 Meinhard, Joseph, 921 Chouteau Ave.
 Meisenbach, A. H., 229 S. Broadway.
 Meisenbach, A. Edward, 2343 Olive St.
 Menestrina, Julius F., 3409 Washington Ave.
 Meng, Edwin R., 728 N. Taylor Ave.
 Menkhaus, John B., 4607 Easton Ave.
 Meyer, Alfred H., 4624 Virginia Ave.
 Meyer, Harry H., 1823 N. Taylor Ave.
 Millar, Reginald C. M., 4344 Easton Ave.
 Miller, H. Edward, 2257 Missouri Ave.
 Miller, John J., 4439 Morgan St.
 Miller, Robert F., 318 Frisco Bldg.
 Miller, W. Jackson, 3014 Park Ave.
 Moeller, Carl E., 1419 S. 7th St.
 Mook, Wm. H., Humboldt Bldg.
 Moore, B. W., 3634 Washington Ave.
 Moore, Harry M., Linmar Bldg.
 Moore, William G., 86 Vandeventer Pl.
 Morfit, John C., Humboldt Bldg.
 Morrell, M. Pinckney, 3693 Olive St.
 Morris, Chris. C., 2945 Franklin Ave.
 Morse, Frank L., 1100 Madison St.
 Mudd, Harvey G., Humboldt Bldg.
 Mueller, Ernst H., 3548 Arsenal St.
 Mueller, Geo. L., 1125 Madison St.
 Muetze, Henry, 3201 Shenandoah Ave.
 Munsch, Augustin P., 4637 Easton Ave.
 Munson, Chas. L., 1145 S. 7th St.
 Murphy, John C., 4263 Morgan St.
 Murphy, R. Brent, 6120 Victoria St.
 Myer, Jesse S., Linmar Bldg.
 Myerick, A. H., 1704 N. Grand Ave.
 Nash, W. H., 405 Commercial Bldg.
 Newrocki, J. F. J., 824 O'Fallon St.
 Neilson, Chas. H., Med. Dept., St. Louis University.
 Nelson, Edwin M., 965 Hamilton Ave.
 Neuhoft, Fritz, 1318 Chouteau Ave.
 Newman, Louis E., Humboldt Bldg.
 Newman, Samuel E., 4323 Laclede Ave.
 Nicholson, Clarence M., 4500 Olive St.
 Niebruegge, H. T., 2003 Salisbury St.
 Nietert, Herman L., 522 Century Bldg.
 Norris, Edwin J., 4223 Russell Ave.
 North, Emmett P., 3920 Russell Ave.
 Oatman, Louis J., 4217 Olive St.
 Oehler, Emanuel F., 1432 Penrose St.
 Ogle, Oliver L., 2625 St. Louis Ave.
 O'Keefe, James J., 1011 N. Leffingwell Ave.
 O'Reilly, Archer, 423 Metropolitan Bldg.
 Orth, Carl, 1437 Penrose St.
 Outten, Warren B., Mo. Pac. Hospital.
 Owen, William C., 3846 Folsom Ave.
 Padberg, Louis R., 3612A Arsenal St.
 Paine, George F., Carleton Bldg.
 Parce, Alexander D., Frisco Hospital.
 Park, George M., 5352 Page Ave.
 Parker, Chas. W., 3502 N. Jefferson Ave.
 Parker, Frederick P., 1423 Euclid Ave.
 Parrish, George, 619 N. Kingshighway.
 Pfingsten, C. F., 2230 College Ave.
 Phillips, Geo. M., 406 Commercial Bldg.
 Pietze, Harry M., 4046 N. Grand Ave.
 Pitzman, Marsh, City Hospital.
 Poignee, Frank P., 917 Hickory St.
 Pollman, Ludwig P., 2002 St. Louis Ave.
 Pope, Chas. H., 1557 S. Jefferson Ave.
 Porter, Alexander, 3886 Washington Ave.
 Post, M. Hayward, 5371 Waterman Ave.
 Potts, J. D., 518 Metropolitan Bldg.
 Powell, Chas. H., 804 Victoria Bldg.
 Powell, Ignatius W., N. E. Cor. Grand & Easton Aves.
 Prinz, Herman, 602 Century Bldg.
 Raithel, G. Herman, 1446 Hogan St.
 Rassieur, Louis, 315 Metropolitan Bldg.
 Ravold, Amand, 1208 Chemical Bldg.
 Reber, Lee W., 1726 S. 12th St.
 Reber, Robert L., 1837 S. 11th St.
 Reder, Francis L., 4629 Cook Ave.
 Reed, Elizabeth B., Lister Bldg.
 Rehfeldt, Chas. S., 2255 S. Jefferson Ave.
 Reim, W. Hugo, 3904 Folsom St.
 Remme, Charles T., 400 S. 14th St.
 Reynolds, M. P., 5805A Easton Ave.
 Rice, D. Frank, 5145 Cabanne Ave.
 Riesmeyer, L. T., 2838 Lafayette Ave.
 Riley, Cassius M., 523 Pendleton Ave.
 Riley, Ralph D., 4641 Washington Ave.
 Ring, Frank R., 619 Chemical Bldg.
 Robinson, Anselm C., 5083 Westminster Pl.
 Rosebrough, Frank H., 928 N. Grand Ave.
 Robertson, William M., Humboldt Bldg.
 Rohlfing, Charles G., 1721 Wash St.
 Rohlfing, H. A. L., 2602 Laclede Ave.
 Rohlfing, Louis C., 3521 Dodier St.
 Rotham, Paul M., 1446 N. 11th St.
 Rothstein, Hugo M., 3309 S. 13th St.
 Rotter, Charles F., 1910 Arsenal St.
 Ruddell, Geo. W., 926 Academy Ave.
 Rush, William H., 3540 Washington Ave.
 Sahlender, Otto L., 321 N. Grand Ave.
 Salter, John C., 3634 Washington Ave.
 Sauer, William E., Humboldt Bldg.
 Saunders, E. W., 3003 Lafayette Ave.
 Saxl, Ernest, 212 Metropolitan Bldg.
 Schaub, Charles W., 2302 Salisbury St.
 Schery, Charles W., 917 Allen Ave.
 Schisler, E. J., Jefferson & Russell Aves.
 Schleiffarth, Chas. W., 3830 Juniata St.
 Schleiffarth, Edgar L., 8 S. Broadway.
 Schlossstein, A. G., 3153 Longfellow Ave.
 Schlueter, Robt. E., 310 Metropolitan Bldg.
 Schmalthorst, D. E., 8212 N. Broadway.
 Scholz, Paul C., 3201 Franklin Ave.
 Scholz, Philip, 3803 N. 14th St.
 Scholz, Roy P., 1110 Ferry St.
 Schuchat, W. Louis, 2200 Chouteau Ave.
 Schulz, Edward, 1716 S. 7th St.
 Schulz, Henry W., 2603 Cherokee St.
 Schwab, Sidney I., Humboldt Bldg.
 Schwarz, Henry, 440 N. Newstead Ave.
 Schwarze, August, 2921 S. Jefferson Ave.
 Scott, James M., 3313 Morgah St.
 Seelig, Major G., Humboldt Bldg.
 Semple, Nathaniel M., Humboldt Bldg.
 Shankland, J. Wilbert, City Hospital.
 Shanklin, Benjamin, 2734 Chouteau Ave.
 Shapleigh, John B., Humboldt Bldg.
 Sharpe, Norville W., 3520 Lucas Ave.

Shattinger, Chas., 2924 S. Grand Ave.
 Sheahan, Edwin L., 3637 Finney Ave.
 Shields, William B., Linmar Bldg.
 Shoemaker, J. F., 1006 Carleton Bldg.
 Shoemaker, Wm. A., 1006 Carleton Bldg.
 Shutt, Cleveland H., City Hospital.
 Sieving, Henry J. C., 1125 St. Louis Ave.
 Simon, Frederick C., 1835 Cass Ave.
 Simon, John H., 4062 Manchester Ave.
 Singer, Jacob J., 212 Ozark Bldg.
 Skinner, Caroline B., Grand & Olive St.
 Sluder, Greenfield, 3542 Washington Ave.
 Smith, Carroll, Humboldt Bldg.
 Smith, Elsworth, Jr., Humboldt Bldg.
 Smith, James A., Mo. Pac. Hospital.
 Smith, John Campbell, Humboldt Bldg.
 Smith, Seth P., 2331 Eugenia St.
 Soper, H. W., 626 Metropolitan Bldg.
 Spain, Kate C., 802 Carleton Bldg.
 Spencer, H. N., 2723 Washington Ave.
 Spencer, Selden, 2723 Washington Ave.
 Spiegelhalter, Joseph, 2166 Lafayette Ave.
 Spinzig, Felix, 937 Park Ave.
 Stauffer, William H., Humboldt Bldg.
 Steedman, Isaiah G. W., 4200 Washington Ave.
 Steer, Justin, 3126 Washington Ave.
 Steiner, Albert S., 1507 Destrehan St.
 Stewart, Floyd, 1524 Chemical Bldg.
 Stewart, James, 4847 Page Ave.
 Stewart, John, 4909 St. Louis Ave.
 Stocking, Lyman C., 1304 Academy Ave.
 Stockwell, Benj. E., 2345 S. Broadway.
 Streutker, C. E. F., 3828 S. Broadway.
 Sturhahn, Ferdinand O., 3519 Hebert St.
 Suggett, Orril L., 423 Commercial Bldg.
 Summa, Henry H., 5703 Florissant Ave.
 Summa, Hugo, 411 Metropolitan Bldg.
 Sutter, Otto, 355 Century Bldg.
 Swahlen, P. H., 415 Metropolitan Bldg.
 Talbott, Hudson, 426 Metropolitan Bldg.
 Taussig, A. E., 3519 Washington Ave.
 Taussig, F. J., 727 Metropolitan Bldg.
 Thierry, C. W., 501 Metropolitan Bldg.
 Thompson, Ralph L., 1402 S. Grand Ave.
 Thumser, Lorenz, 1808 Victor St.
 Tiedemann, E. F., 3635 Cleveland Ave.
 Tobacnic, Maxwell, 2903 Thomas St.
 Tooker, Chas. W., 409 N. Grand Ave.
 Tuholske, Herman, 465 N. Taylor Ave.
 Tuholske, Moritz C., 4130 Easton Ave.
 Tupper, Paul Y., Linmar Bldg.
 Tuttle, Geo. M., 4519 Washington Ave.
 Ude, Waldemar, 3546 Gravois Ave.
 Valle, Jules F., 4955 Maryland Ave.
 Vandover, Samuel T., 903 Morrison Ave.
 Van Hoefen, Samuel, 8408 Hall's Ferry Rd.
 Van Hoefen, S. A., 8313 Hall's Ferry Rd.
 Vasterling, Paul F., Mo. Pac. Hospital.
 Vaughan, John W., Euclid & Washington Aves.
 Vielt, Edward J., 6901 S. Broadway.
 Vierling, Otto, 4555 Adkins Ave.
 Vinyard, Paul, 3901 Park Ave.
 Vitt, Rudolph S., 3924 S. Broadway.
 Vogler, Alfred T., 1523 Penrose St.
 Vogt, Gustav W., 4977 Lotus Ave.
 Vogt, Wm. H., 732 Metropolitan Bldg.
 Von der Au, Otto L., 2306 S. 13th St.
 Vosburg, Chas. A., 4149 Lindell Blvd.
 Wagers, Arthur J., 3773 W. Pine St.
 Walker, Clarence E., 6422 Virginia Ave.
 Ward, Edgar P., 2831 Shenandoah Ave.
 Warfield, L. M., 3806 Washington Ave.
 Watson, Chas. M., St. John's Hospital.
 Webb, William, 5575 Delmar Ave.
 Weinsberg, Chas. H., 1531 S. 11th St.
 Weinsberg, Julius H., 2015 Russell Ave.
 Weiss, William, Mo. Pac. Hospital.
 Weiterer, Herman L., 2728 N. 11th St.
 Wessler, F. W., 2819 S. 13th St.
 Westbrook, George W., 415 S. 23rd St.
 Westerman, C. M., 512 Mo. Trust Bldg.
 Wheelpley, Henry M., 2342 Albion Place.
 White, Chas. A., 420 Holland Bldg.
 Wichmann, A. G., 1624 S. Jefferson Ave.
 Wichmann, H. L., 3229 S. Jefferson Ave.
 Wiener, Meyer, Carleton Bldg.
 Wild, Frank, 3600 N. 14th St.
 Wilkes, Benj. A., Linmar Bldg.

Williams, Albram D., Hotel Deckard, Bedford, Ind.
 Williamson, Llewellyn P., 611 Metropolitan Bldg.
 Wilson, Allen, 1514 Wagoner.
 Wilson, Alvah M., Humboldt Bldg.
 Wilson, Charles A., 635 Century Bldg.
 Wilson, Robert E., 817 Third National Bank Bldg.
 Winn, William B., 2707A Lafayette Ave.
 Winter, William O., 3630 S. Broadway.
 Wobus, Reinhard E., 2022 Salisbury.
 Wolfner, Henry L., 500 Carleton Bldg.
 Wood, William E., 454 Century Bldg.
 Woodruff, F. E., 2925 Washington Ave.
 Woolsey, Ross A., Frisco Hospital.
 Wyche, Charles, Humboldt Bldg.
 Yost, Walter B., 1119 Union Blvd.
 Young, Anthony O., 4229 Olive St.
 Zahorsky, John, 1460 S. Grand Ave.

SCHUYLER COUNTY.

Bridges, J. B., Downing, Mo.
 Gerwig, H. E., Downing, Mo.
 Keller, J. H., Glenwood, Mo.
 Mitchell, E. L., Lancaster, Mo.
 Mitchell, W. F., Lancaster, Mo.

SCOTLAND COUNTY.

Alexander, W. E., Memphis, Mo.
 Baker, P. M., Arbela, Mo.
 Bondurant, W. E. H., Memphis, Mo.
 Davis, A. L., Arbela, Mo.
 Foster, F. G., Memphis, Mo.
 Maynard, G. K., Hitt, Mo.
 Parrish, E. E., Memphis, Mo.
 Pile, O. F., Memphis, Mo.
 Platter, A. E., Memphis, Mo.
 Shacklett, J. A., Rutledge, Mo.

SCOTT COUNTY.

Atkisson, J. A., Morehouse, Mo.
 Blockledge, H. T., Commerce, Mo.
 Cannon, G. S., Fornfelt, Mo.
 Cline, J. A., Vanduser, Mo.
 Frazer, T. R., Commerce, Mo.
 Harris, W. E., Oran, Mo.
 Haw, U. P., Benton, Mo.
 Hutton, W. S., Fornfelt, Mo.
 Lucas, H. R., Chaffee, Mo.
 McCabe, R. S., Chaffee, Mo.
 Mayfield, L. S., Graysboro, Mo.
 Milem, J. A., Sikeston, Mo.
 Ogilvie, Fred, Blodgett, Mo.
 Rodenmeyer, Henry, Kelso, Mo.
 Sparks, R. A., Blodgett, Mo.
 Tate, P. S., Fornfelt, Mo.
 Tomlinson, T. E., Morley, Mo.
 Wade, S. J., Benton, Mo.
 Wescoat, W. H., Oran, Mo.

SHELBY COUNTY.

Carson, Wm., Shelbyville, Mo.
 Chapman, Chas., Shelbyna, Mo.
 Dallas, L. W., Hunnewell, Mo.
 Daniel, J. R., Clarence, Mo.
 Delaney, G., Emden, Mo.
 Dodson, D. A., Hunnewell, Mo.
 Owen, W. W., Shelbyna, Mo.
 Pollard, H. M., Shelbyna, Mo.
 Reed, N. M., Clarence, Mo.
 Singleton, D. E., Shelbyna, Mo.
 Smith, J. D., Shelbyna, Mo.
 Smith, L. L., Bethel, Mo.
 Vaughn, H. C., Shelbyna, Mo.
 White, A. T., Lakenan, Mo.
 Willis, H. T., Shelbyna, Mo.
 Wood, A. G., Lentner, Mo.
 Wood, A. M., Lentner, Mo.

STODDARD COUNTY.

Allen, T. C., Bernie, Mo.
 Ashley, John, Bloomfield, Mo.
 Dieckman, W. C., Dexter, Mo.
 Douglas, J. A., Dexter, Mo.
 Evans, S. M., Bloomfield, Mo.
 Kerr, W. F., Dudley, Mo.

LaRue, H. Dexter, Mo.
 Moore, Edward, Bloomfield, Mo.
 Vernon, G. W., Dexter, Mo.
 West, S., Idalia, Mo.
 Wingo, T. B., Fulton, Mo.

SULLIVAN COUNTY.

Garner, R. L., Pollack, Mo.
 Herington, Warner, Green City, Mo.
 Holladay, S. J., Pollack, Mo.
 Montgomery, J. S., Milan, Mo.
 Poole, A. R., Milan, Mo.
 Porter, E. S., Milan, Mo.
 Roberts, J. C., Boynton, Mo.
 Shriver, C. F., Harris, Mo.
 Widner, A., Newtown, Mo.
 Wilson, C. S., Green City, Mo.
 Witter, W. L. M., Milan, Mo.

TANEY COUNTY.

Balwin, F. V., Forsyth, Mo.
 Burdett, Charles W., Branson, Mo.
 Compton, J. P., Branson, Mo.
 Houston, O. C., Forsyth, Mo.
 Humphreys, T. H., Kisse Mills, Mo.
 Irwin, R. M., Gretna, Mo.
 McIntyre, Elizabeth, Branson, Mo.
 Mitchell, Guy B., Forsyth, Mo.
 Nicholson, J. O., Protom, Mo.

VERNON COUNTY.

Adams, W. T., Richards, Mo.
 Altham, A. G., Metz, Mo.
 Amerman, I. W., Nevada, Mo.
 Bohannon, W. T., Nevada, Mo.
 Buchanan, J. Robt., Nevada, Mo.
 Callaway, L. H., Nevada, Mo.
 Chambers, James C., Schell City, Mo.
 Churchill, E. R., Nevada, Mo.
 Craig, T. B. M., Nevada, Mo.
 Colson, J. R., Schell City, Mo.
 Davis C. B., Walker, Mo.
 DeVilbiss, E. F., Nevada, Mo.
 Dulin, E. A., Nevada, Mo.
 Farrington, O. P., Moundville, Mo.
 Jarvis, H. C., Schell City, Mo.
 McLemore, T., Nevada, Mo.
 Mackey, A. H., Gorin, Mo.

Manahan, J. H., Bronaugh, Mo.
 Mead, S. T., Nevada, Mo.
 Popplewell, W. H., Sheldon, Mo.
 Primm, W. B., Deerfield, Mo.
 Robinson, G. Wilse, Nevada, Mo.
 Robinson, J. F., Nevada, Mo.
 Royston, W. P., Harwood, Mo.
 Talbot, C. W., Nevada, Mo.
 Todd, T. B., Richards, Mo.
 Truex, J. L., Milo, Mo.
 Williams, V. O., Nevada, Mo.
 Willson, G. C., Nevada, Mo.
 Yater, J. M., Nevada, Mo.

WAYNE COUNTY.

Bailey, W. S., Leeper, Mo.
 Gilmer, J. E., Piedmont, Mo.
 Hale, J. W., Greenville, Mo.
 Loney, G. W., Piedmont, Mo.
 Owens, R. J., Mill Spring, Mo.
 Sebastain, J. P., Williamsville, Mo.

WEBSTER COUNTY.

Atkins, W. A., Rogersville, Mo.
 Bailey, E. M., Elkland, Mo.
 Beatie, W. R., Marshfield, Mo.
 Bollinger, W. H., Seymour, Mo.
 Bruton, T. S., Seymour, Mo.
 Cantwell, B. T., Rogersville, Mo.
 Florence, T. S., Marshfield, Mo.
 Highfill, M., Marshfield, Mo.
 James, E. F., Marshfield, Mo.
 McHaffie, C. H., Rogersville, Mo.
 Mott, J. R., Northview, Mo.
 Rabenan, W. J., Fordland, Mo.
 Somers, W. R., Niangua, Mo.
 Trimble, Eli, Seymour, Mo.
 Williams, D. A., Niangua, Mo.

WORTH COUNTY.

Dove, P. O., Allendale, Mo.
 McKinley, W. E., State Hospital, St. Joseph, Mo.
 Mills, H. P., Grant City, Mo.
 Mills, O. P., Grant City, Mo.
 Nesbitt, E. P., Sheridan, Mo.
 Phipps, J. K., Grant City, Mo.
 Robertson, W. A., Allendale, Mo.

BOOK REVIEWS

A TREATISE ON SURGERY. In two volumes. By George R. Fowler, M. D., Examiner in Surgery, Board of Medical Examiners of the Regents of the University of the State of New York; Emeritus Professor of Surgery in the New York Polyclinic, etc. Two imperial octavos of 725 pages each, with 888 text illustrations and four colored plates, all original. Philadelphia and London: W. B. Saunders Company. 1906. Per set: Cloth, \$15.00 net; half morocco, \$17.00 net.

The second volume of this large work is one of the best examples of American art in this line. This volume alone contains 714 pages, and the illustrations in it number about 500. Many of these latter deserve special mention for the excellence with which they are conceived. This volume deals with regional surgery. The following subject matter being treated: The vertebræ and their contents. The abdomen and pelvis. The female generative organs, and upper and lower extremities. The general scope of the work is comprehensive and evidently intended to meet the requirements of a student.

THE AMERICAN ILLUSTRATED DICTIONARY.—All the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry and kindred branches; with over 100 new tables. By W. A. Newman Dorland, M. D., Fourth Revised Edition. Octavo of 836 pages, with 293 illustrations, 119 of them in colors. Philadelphia and London: W. B. Saunders Company. 1906. Flexible Morocco, \$4.50 net; thumb indexed, \$5.00 net.

This is a handsome volume, bound in flexible leather and is the fourth edition of this well-known medical dictionary. The book has been prepared with special reference to pronunciation and quick reference and deserves a place in every medical library.

SURGERY: ITS PRINCIPLES AND PRACTICE. In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M. D., LL.D., Hon. F. R. C. S., Eng. and Edin., Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College. Philadelphia. Volume III, Octavo of 1132 pages, with 562 text-illustrations and 10 colored plates. Philadelphia and London: W. B. Saunders Company, 1908. Per volume: Cloth, \$7.00 net; half morocco, \$8.00 net.

The third volume of Keen's Surgery comprises the following contributions: Surgery of the Head, by Harvey Cushing; Surgery of the Neck, by E. Wyllys Andrews; Diseases of the Thyroid Gland, by Albert Kocher; The Nose and Its Accessory Sinuses, by Harmon Smith; Surgery of the Larynx, Trachea and Thorax, by George E. Brewer; Breast, by John M. T. Finney; Mouth, Teeth and Jaws, by Edmund Owen; Tongue, by John Ch. DaCosta; Technic of Abdominal Surgery, by John C. Munro; Surgery of the Abdominal Wall, by J. C. Munro;

Esophagus, by G. Gottstein; Stomach, by A. W. Mayo Robson; Liver, Gallbladder and Biliary Ducts, by William J. and Charles H. Mayo, and finally two chapters by B. G. A. Moynihan on Surgery of the Pancreas and Spleen.

This indeed is an impressive list of famous names, giving ample guarantee for the production of a work which embodies the most advanced teachings of modern surgery.

BIOGRAPHIC CLINICS; Volumes III., IV. and V. Essays Concerning the Influence of Visual Function, Pathologic and Physiologic, Upon the Health of Patients. By Geo. M. Gould, M. D. Author of "An Illustrated Dictionary of Medicine," "The Practitioner's Medical Dictionary," etc. Philadelphia: P. Blakiston's Son & Co.

These essays by Dr. Gould are indeed delightful reading. Dr. Gould possesses a rare quality of style and fluency seldom shown by medical writers of the present day, making his essays most pleasing specimens of English. The essays have been published in our best journals and are here collected and bound in book form. The doctor waxes sarcastic over some examples of very careless refraction and in one of his essays ventures the assertion that there is not a first class school of refraction in America. This, of course, is an exaggeration; his sarcasm could be better directed at the profession for permitting its members to become specialists after a "six weeks post-graduate course."

PRACTICAL MEDICAL SERIES. 1906: Volume V. OBSTETRICS. By Dr. DeLee. Volume VI. GENERAL MEDICINE. By Drs. Billings and Salisbury. Volume VIII. THERAPEUTICS. By George F. Butler, Ph.G., M.D., and George S. Browning, B.S., M.D. PREVENTIVE MEDICINE. By Henry B. Favill, A.B., M.D. CLIMATOLOGY. By Norman Bridge, A.M., M.D. SUGGESTIVE THERAPEUTICS. By Daniel R. Brower, M.D. FORENSIC MEDICINE. By Harold N. Moyer, M.D. Volume IX. ANATOMY AND PATHOLOGY. By W. A. Evans, M.S., M.D. PHYSIOLOGY AND BACTERIOLOGY. By Adolph Gehrmann, M.D. DICTIONARY OF NEW WORDS. By William Healy, A.B., M.D. Volume X. SKIN AND VENEREAL DISEASES. By William L. Baum, M.D. NERVOUS AND MENTAL DISEASES. By Hugh T. Patrick, M.D., and William Healy, A.B., M.D. Year Book Co., Publishers, Chicago.

One would not have to search long to find more exhaustive articles than the ones contained in these volumes. But that is not the object of these little books. For the busy practitioner there is nothing that can replace them. They contain a clear summary of the latest literature in medicine on the subjects dealt with. They are contributed by men who are well known in the medical profession of America, men who are authorities in their various lines of work. They are to be commended, especially to those who have not the time to investigate. While they are not as bulky as other books on the same subjects, the field of medicine in the subjects discussed is well covered.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore, and John Ruhräh, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Second Edition. W. B. Saunders Co., Philadelphia and London.

After the recommendation of the American Association of Agricultural Colleges and Experiment Stations, the authors have grouped under the term "Proteins" all the nitrogenous food compounds except the nitrogenous fats. The wisdom of this is apparent when one considers the value of these institutions as sources of information concerning foods, their character and nutritive value. Under "Proteins" are included albuminoids (the proteids of physiologists), gelatinoids (the albuminoids of physiologists), and extractives.

The authors have drawn freely from the Agricultural Bureau at Washington and from the leading analysts and physiologists of the world, and as a result of careful selection of materials and facts have presented a mine of information concerning the chemical composition, caloric value, and digestibility of American foods especially. Diet for infants and special physiological conditions are taken up in a very effective manner and a strong suggestion is made of the possible difference between theoretic food value and practical availability, and of the necessity of additional research in this direction.

The section on Diet and Disease, while it encroaches somewhat unnecessarily upon the domain of therapeutics, reflects the best thought of the ablest clinicians in both the old and the new world, but exhibits only too plainly, in many instances, the diversity of opinion characteristic of medical practitioners. Dietaries in army, navy, hospitals and other public institutions are made especially interesting and instructive; and finally a collection of recipes and diet lists assists in making the work an invaluable aid to the student and practitioner, as well as to the dietary management of hospitals and other institutions.—R. T. S.

THE PANCREAS. ITS SURGERY AND PATHOLOGY. By A. W. Mayo Robson, London, and P. J. Cammidge, London. Illustrated. Philadelphia and London. W. B. Saunders Co. 1907.

This new work upon one of the most widely discussed subjects of the times, represents the original investigations of these eminent authorities. It takes up Anatomy, Embryology, Histology, Physiology, Pathology, Symptomatology and Injuries and Diseases, and there are special chapters on Chemical Pathology and Diabetes. The volume contains a large number of excellent illustrations. Each chapter closes with a bibliography.

Thus these two authors have given the profession a treatise on the pancreas which in completeness and clearness outranks everything that heretofore has been published on this important subject.

SAUNDERS POCKET MEDICAL FORMULARY. W. B. Saunders & Company, Philadelphia.

This formulary has reached the eighth edition, the first having been printed in the fall of 1891. It is complete and contains all the standard formulas and many new ones. The appendix contains a chapter on emergency work and quite a lengthy list of "don't's" for the surgeon.

PRACTICAL DIAGNOSIS. The Use of Symptoms and Physical Signs in the Diagnosis of Disease. By Hobart Amory Hare, M. D. Sixth Edition. Illustrated. Pp. 616. Lea Brothers & Co., Philadelphia and New York. 1907.

Hare's book has always been one of the best and most complete compendiums of bedside diagnosis. The new edition is fully up to the standard of its predecessors and will be found as useful as they do to the general practitioner.

PRACTITIONER'S HAND-BOOK OF MATERIA-MEDICA AND THERAPEUTICS. By Thomas S. Blair, M. D., of Harrisburg, Pennsylvania. The Medical Council, Philadelphia.

The intent of the author of this book seems to be to encourage the use of drugs in small doses and to discourage bulky medication. He has no pathy, ism or new theories to advance, but takes up the matter of the physiologic action of the drugs in small doses.

We think Dr. Blair's points and ideas are well taken, and it is to be hoped that the day of over-medication is past.

A TEXTBOOK OF PHYSIOLOGY. By Isaac Ott, A. M., M. D., Professor of Physiology in the Medico-Chirurgical College of Philadelphia, etc. Second edition, revised and enlarged. Illustrated with 393 half-tones and other engravings, many in color. Philadelphia, F. A. Davis Co., publishers, 1907.

It was the author's aim to embody in this volume those chief facts of physiology a knowledge of which is indispensable in the study of pathology and medicine in general. The writer has well succeeded in his plan and has found an early opportunity to further increase the value of his book by the demand for a second edition. It has been enlarged by the addition of 240 pages and of 250 new figures.

MANUAL OF DISEASES OF THE NOSE, THROAT AND EAR. By E. B. Gleason, M. D., LL.D., Clinical Professor of Otology in Medico-Chirurgical College; Aurist to Medico-Chirurgical Hospital, etc., etc. Illustrated. W. B. Saunders & Co., Philadelphia and London.

A most up to date reference manual of diseases of the nose, throat, ear and accessory sinuses, in which the author has given many formulas and methods of treatment before resorting to surgery.

H. G. T.

INTERNATIONAL CLINICS. Vol. I. Eighteenth Series. 1908. J. B. Lippincott Company, Philadelphia.

This work keeps up its high reputation. The first article is one on "The Sanatorium" by Lawrason Brown. The title does not tell the subject which is practically the open air treatment of tuberculosis. The need of practical and convincing articles on this subject is well illustrated by the experience of a well known physician who recently discoursed before a state medical society. He considered that his remarks were or ought to have been commonplace in these days, but after he sat down more than one colleague came to him, and innocent of all intent to call

him untruthful, said to him "but you don't really keep these patients in the *open air*?"

Sir Dyce Duckworth contributes a scholarly article on "Textural Proclivities and Immunity. The Personal Factor in Medicine." This lecture was the key-note of his speech when he represented the Royal College of Physicians in Paris recently. Today so much attention has been paid to the seed of disease that study of the necessary soil has been considerably neglected. In France considerable prominence has recently been given to a revival of an old, old method of treatment. Thierloix finds that the production of what he calls "Fixation Abscess," by means of the injection of 1 cc. of spirits of turpentine into the cellular tissues away from the dermis and aponeurosis, is of value in the treatment of "ordinary, simple septicemia, where other means of treatment have failed." One feels inclined to laugh at some of these aged means of treatment—at first glance they seem so foolish, but so many things believed in by our grandmothers and scoffed at by scientists have proven to be founded on fact, though obscured by fiction, that one is now shy of filling the scorner's chair. The pages devoted to surgery are unusually good. Chapters on the progress of medicine and surgery (the latter by Bloodgood) close a most excellent volume.

J. F. B.

A TEXT-BOOK OF OBSTETRICS. By Adam H. Wright, Professor of Obstetrics, University of Toronto; Obstetrician and Gynecologist to the General Hospital, Toronto, Canada. With 224 illustrations. D. Appleton and Company, New York and London, 1905.

That we need a concise, but clear and accurate manual of obstetrics for the student is true. The volume under review meets the demand in obstetrics fairly well. The author is conservative and safe. His advice is always acceptable. The plan of illustrating points by the giving of case histories is commendable; it interests the student, shows him the practical side of his study, and enables him the better to understand and to remember. The illustrations are clear and well selected.

A few suggestions may be offered. The book seems larger than the contents would require. A few terms, such as "presentation" and "presenting part," are not defined in the usual way. For teaching purposes would not more detail in classification, as in giving the signs and symptoms of pregnancy, be more acceptable? The prominence given to Sylvester's method of artificial respiration for asphyxia of the new-born is entirely too great; the method is practically worthless for the reason that the pectoral muscles are too weak to be of any use. The modified Byrd's method might have been given.

The book, as a whole, will be found very satisfactory.

D. C. G.

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